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THE MOTOR AGE

THE AUTOMOBILE AUTHORITY OF AMERICA

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A. H. OVERMAN

Who Built Bicycles Well and Who Now, as President of the Overman Automobile Company Is Building Steam Vehicles Equally Well

THE MOTOR AGE

For and About Club Men.

NEW YORK, Feb. 9.—The new club rooms of the Automobile Club of America will probably be ready for their formal opening next Friday. In the afternoon there will be a reception to newspaper men and in the evening there will be a formal taking of possession by the members.

The Long Island Automobile Club governors met on Wednesday and further discussed plans for the hundred mile test, which will be run late in April or early in May over Long Island roads. It was suggested that the Automobile Club of America members be invited to a reception and run on Washington's Birthday. C. J. Field, one of the governors, made some objection as he had already invited the New York and New Jersey automobile clubs to lunch with him the following day at the De Dion-Bouton Motorette Works and to go through the factory. Dr. Spurr suggested that the chauffeurs could store their automobiles over night at the Long Island Automobile Club, where there are accommodations for seventy-five vehicles, and ride to the factory the next day. The club house at State street and Flatbush avenue is within fifteen minutes' trolley ride of the Brooklyn Bridge.

The Long Island Automobile Club is contemplating sending out invitations to all automobilers to use the storage house of the club on their Long Island trips, as it is convenient to all roads and readily accessible for an early morning's start or a "put up" over night at the end of a run. There is, by the way, some talk of an amalgamation of the L. I. A. C. with the A. C. of A., as much of the metropolitan district riding will be in Long Island and a club house in Brooklyn will be a great convenience.

Mr. Hastings, an enthusiastic photographer as well as chauffeur, has framed a number of sets of pictures taken by him and hung them in the L. I. A. C. house. They include complete sets of views of the big Long Island road race and the great Philadelphia run, some of which have already appeared in Motor Age.

The 500-mile run of the Automobile Club of America to Buffalo next summer is an undertaking of such magnitude that the club is already busily engaged with the preparations. In fact the necessity of the course being marked by sign boards has had much to do with the prompt and liberal action of the associated clubs in the matter, as set forth in a separate letter in this issue.

W. K. Vanderbilt, Jr., is now a full fledged and enthusiastic member of the A. C. of A. Neither cold, wind, snow nor rain keeps him from his rides, many of which are between this city and his Long Island country home. Your correspondent saw him the other day facing an icy gale heading down 34th street to the ferry. He and his mechanic were enveloped in furs and he was driving the White Ghost. He will sail for Europe in a few days and it is said, will visit the

factory in France, where a new Panhard is now in course of special construction for him.

BIG EVENTS IN SOUTHERN FRANCE

The automobile season at Nice, France, will present a number of interesting events. The "Grande Semaine," the week of automobile fetes, will commence on March 25 and last until April 1, as previously chronicled in the Motor Age. Besides the events included in this programme, a number of races will be held under the direction of the Automobile Club of Nice. No less than seven cups have been offered to the club by different persons, and great preparations are now being made for the races. These events, in the order of their dates, are as follows, according to the Scientific American:

The Luiski cup, January 21, for road wagons, will be run from Cagnes to St. Victor, over a hilly road. The De Bary cup, January 27; this will be run in two stages; the indication of the route is reserved until the time of starting. The Brunetta d'Usseax cup, March 25. The Baron Arthur de Rothschild cup will be run on the 12th of March over the route from Nice to Turbie. It is for large machines only, for at least four persons, weighing (voyagers included) over 3,300 pounds. The starting point will be at the foot of the slope of the route from Genoa to Nice (altitude 0) beyond the junction with the Turin road, and the end will be at a distance of 5.4 miles, at an altitude of 1,600 feet, thus requiring some hill climbing. The engagements will be received up to the 9th of March by the Automobile Club of Nice. The machine making the best time will gain the cup, and the second best will receive a silver medal offered by the club. A full set of rules has been published.

The next event is the race for the Lebaudy cup, March 17, for carriages weighing over 990 pounds. It will start from Cannes, following the route Frejus, Hyeres, Cuers, Le Luc, Frejus, Cannes. The rules for the Baron Henri de Rothschild cup have also been published. The race is fixed for the 28th of March, and is open to all vehicles weighing more than 1,320 pounds and carrying two persons. It is a speed race, and will be held on the cemented racetrack of the Promenade des Anglais; the distance will be 0.6 mile (1 kilometer). Only the machines making the distance in less than one minute will be counted. This is a challenge cup, and will be competed for each year at the same period. Engagements will be received by the club until March 27. The last event of the series is the Nice cup, March 31. This is the second year for this cup; it was won last year by M. Pinson.

A PROHIBITORY DECISION

Only three or four years ago the English parliament wiped out of existence an old law which made it compulsory for the approach of any self-propelled vehicle to be heralded by a man carrying a red flag. The law was intended to apply to traction engines and such devices, and its removal was due to the introduction of the automobile.

It seems that we were, in this respect, behind the old country. In New York state the Supreme Court has just decided that a steam vehicle must be preceded by a runner whose duty it is to warn people of the approach of the infernal machine. There are no applications for the position of "outrunner to W. K. Vanderbilt, Jr.," up to date.

The facts in the case are these: Louis W. Moore, of Watertown, has been assessed heavy damages in the Supreme Court in Saratoga county for causing a runaway. Judge Russell held that a steam vehicle, like any other brand of steam engine, was bound by the law which compels its driver to send a man ahead of it, at a distance of an eighth of a mile, to warn travelers of the approach of such a vehicle. As Mr. Moore had no such outrider—or, rather, outrunner—it was for the jury to decide whether he was not guilty of culpable negligence. The jury decided that he was.

The decision, if properly quoted, is a serious menace which must receive the

immediate attention of the manufacturers' association and of the Automobile Club of America. While hardly likely to be generally enforced, it is likely to cause trouble at any time. If one may judge from the ardor with which the eastern people have taken up the ferry-boat question, there is little chance of this new opportunity to distinguish themselves being long neglected.

GOOD WORK BY A. C. OF A.

New York, Feb. 9.—Early spring will see the roads from New York to Boston and to Albany and clear through to Buffalo, as well as the Long Island highways, completely fitted with sign boards, put up by the Automobile Club of America and some of its allied clubs.



One of the Sign Boards.

President Albert R. Shattuck showed a Motor Age man a sample of the iron posts and boards that are to be erected. It is ten feet high, and will be sunk in the ground three feet. The lower part of the post is about two inches square. From the top extends upward a rod about an inch in diameter. The signs are iron strips, with holes to fit the iron rod so that they may be slipped on. In this way as many signs as may be desired can be put on a rod.

The name of the town, the arrow and the distance are in raised letters and silvered on a black ground.

"We have three hundred of these posts," said President Shattuck, "all ready to set up as soon as the frost is out of the ground."

The Long Island Automobile Club has paid for fifty of these sign posts for main road crossings and in addition by an agreement with the Long Island Railroad and the New York and New Jersey Telephone Co. have arranged for about 250 additional signs, which will be bolted to posts already in place. They will be of heavy iron, solidly built and "fool-proof."

These signs will be placed on the south shore between Brooklyn and Amagansett, on the central road from Jamaica eastward and the north shore from Flushing to Port Jefferson.

SPEED LIMIT LEGISLATION

New York, Feb. 9.—Legislation now under consideration at Washington and Albany is keeping the law committee and the members of the Automobile Club of America busy. The ferry boat gasoline vehicle bill is meeting with no opposition, but the attention to necessary routine business are provokingly preventing the passage of the amendment. Messrs. Chamberlin and Church are urging Senator Platt, who has been detained in New York by the illness of his wife, to bring up the bill as a special and privileged order of business.

An annoying bit of state legislation has cropped up at Albany in the form of an ill advised bill to give to the supervisors of counties adjacent to first class cities the power to regulate the speed of all vehicles. This legislation is aimed directly against automobiles and was the outcome of occasional reckless speeding by chauffeurs on Long Island roads.

"We do not oppose proper regulation of speed," said George F. Chamberlin to a Motor Age man yesterday. "Far from it; for the constitution of our club and in fact the paragraph setting forth

its object call for the co-operation of the club in all legislation tending to the proper regulation of speed and the conduct of chauffeurs on the public highways. It will be a great mistake, however, to give to the supervisors the power of making local speed laws. There should be a uniform law in force all over the state, so that the touring chauffeur may know how to conduct himself everywhere.

"There is little danger of itself, however, in mere speed. An automobile is as dangerous a proposition going at twelve miles an hour as at thirty miles. It is proper, however, to regulate a chauffeur's speed and conduct in meeting or passing vehicles and in encountering crossings used by pedestrians. There should also be laws compelling the carrying of lights at night and the use of bells and other means of warning to met on Wednesday and passed resolutions, which show the good and orderly intent of the club and I am glad to let Motor Age have a copy:

Resolved, That driving automobiles, by members of this club, at an excessive rate of speed on the public highways, in disregard of municipal or local regulations and of the comfort and safety of other users of the common roads, be and the same is hereby strongly disapproved by this club, as an injury to the sport and to a great industry; and that when members driving their automobiles meet the driver of a horse or horses which shall be restive or frightened, on request or signal from such drivers members shall in all cases stop, and use every effort and precaution to avoid the possibility of accident.

Resolved, further, That any member of this club who shall be found after a fair hearing to be guilty of driving at said dangerous and excessive speed on the public highways, and who shall have disregarded the safety and comfort of other users of the same by failure to stop when requested by the driver of frightened horse or horses, or who has been guilty of such conduct in the use of an automobile on the highway as shall tend to bring odium and reproach on this organization, shall be duly warned and suspended, and upon repetition of such offense shall be expelled from this club.

The secretary is directed to send a copy of this resolution to each member of this club, and to express in a letter accompanying the same the earnest request of this board that the foregoing regulations be carefully observed.

THE PRESIDENT TAKES A HAND

President Loubet of France has visited the great Paris automobile exposition and evinced a gratifying amount of interest in autos and automobilism. While surrounded in the Grand Palais by representatives of the Paris automobile clubs and manufacturing interests he spoke with effect upon the present much debated question concerning fast road races and which is the bone of contention between the Automobile Club of France and the Automobile Union. His remarks were considered as flattering acknowledgement of the correctness of the stand taken by the Union. President Loubet said:

"I find that certain chauffeurs burn the roads at exaggerated speeds. Your racers go through France with vehicles which, I recognize, are mechanical marvels, but which, when passing through the villages, give the effect of a tornado.

"You know that women and chickens invariably cross the road at the most inopportune moment just as your vehicle approaches. If you wish to turn to the right they turn to the right and if you turn to the left they go to the left also. You know, further, that the road belongs to everybody. Therefore profit by it but do not abuse it. Anyhow, it is to your interest. You must not only make yourselves known but must also try to make yourselves well liked by the masses, and you certainly will not be liked by the farmer as long as you run over his chickens. The chicken is your enemy and you must respect it.

"Go slower; go slower, and if you promote races see that the organization of them is perfect and every detail given attention. Advise the mayors of the towns on the route and let them know in advance when you are to pass through their villages."

THE TOURNAMENT OF ROSES

For the first time in the history of the famous annual Tournament of Roses, at Pasadena, Cal., the automobile took a prominent part this year. The procession is described as, from first to last,



SECOND PRIZE WINNER, TOURNAMENT OF ROSES

"an enchanting bit, right out of fairy land." To we shivering mortals of the north it seems almost incomprehensible that this glorious event occurred right in the heart of winter, and that gauzy dresses and ostrich plumes were the order of the day. There were horsemen and footmen, cyclists and automobilists, military men and secret societies. In short the whole neighborhood seems to have been there in all its glory, and the automobiles seem to have been in good company.

The first prize for the best decorated automobile was awarded to W. G. Hansen and Miss Lorina Hansen. It is a De-Dion quadricycle and is described as "a symphony in pink." Miss Hansen was attired in material of exactly the same shade as the flowers.

The design consisted of a large floral crown, supported from above, made of pink geraniums and twined with smilax. The lower portion of the crown was banked with pink with a band of smilax. Below this and behind, was a huge lyre trimmed likewise in smilax and pink geraniums. The wheels and shields, the seat in front, on side and back and dash were trimmed and banked. Above the dash and nestled upon a framework of twined smilax perched two white pigeons which the fair occupant on the forward seat drove with pink ribbons.

R. H. Gaylord, a Pasadena enthusiast, took second prize with his Milwaukee steam vehicle. It had been decorated with much attention to design and to detail, with carnations, geraniums and smilax. The body of the vehicle was a solid mass of crimson carnations and at the rear was a curtain of smilax. Over the front was a graceful arch of carnations and smilax. while upon a solid screen of smilax, extending across the front, was an immense "G" in crimson carnations.



The First Prize Winner

Philadelphia Show

INDEX

QUAKERS OPEN ALL EYES TO AUTOMOBILES

PHILADELPHIA, Feb. 9.—A little thing like two automobile shows in a fortnight can't phase the Philadelphia public; nor the show promotors, neither. Notwithstanding what would in almost any other city in the country have proven a surfeit of automobiles at the Cycle Board of Trade's show last week, and the coldest cold snap of the season, the Quaker City seekers after motor vehicle knowledge fairly surged into the Second Regiment armory building all this week, and to-night, when the exhibition was closed, the crowds were so dense as to make progress along the somewhat narrow aisles difficult indeed.

So successful has the venture proven that at one time the Pennsylvania Automobile Club, which is backing the affair, seriously contemplated extending it another week, but wiser counsels prevailed. With fifty-five separate exhibits —of which twenty-five were of automobiles (represented by 104 vehicles), eleven of engines, six of tires, six of lamps, bells, clothing, etc., and seven devoted to automobile journalism—the shows claims precedence of any similar exhibition held in this country, with the possible exception of that held last November in Madison Square Garden, New York. Thirty-one different concerns building automobiles alone were represented, and the value of the vehicles under the armory roof during the show aggregated fully $150,000.

No Space to Spare

Had the building been half again as large there would have been little difficulty in disposing of the exhibition space. As it was, not only were the exhibitors crowded, but the aisles were so narrow as to make progress for the spectators, especially in the evening, somewhat difficult. The management exerted itself to procure space for every applicant, and in quite a number of instances succeeded in inducing exhibitors to give up a portion of their allotments; but, notwithstanding all these efforts, quite a number of eleventh-hour applicants were compelled to stay out. Early in the week it was proposed to rent th adjoining dwelling, but, owing to the impossibility of taking the machines in intact, this idea was abandoned. The exhibitors generally had nothing but praise for the management, and comparisons of the treatment accorded them here and elsewhere were often drawn, and always to the advantage of the Philadelphians.

Good Business Results

The track enabled the exhibitors to supplement their "lines of talk" with practical exposition of the workings of their machines, and as a consequence sales were numerous. Very few of the exhibitors failed to register one or more sales during the week. The Knox, De Dion-Bouton, Motor Carriage Co., Locomobile and Mobile concerns claimed to be satisfied with results on Wednesday, before the show was half over. The Dow company pulled in a single order for 1,000 coils—the largest ever booked by one firm at a show.

Not a few of the exhibitors asserted that as far as business was concerned, even the Madison Square Garden show was not in the same class. They ascribed this to the facts that the New York exhibition was held just at the beginning of winter and that there was a considerably greater variety of vehicles on exhibition here than in the metropolis. Then there seemed to be more genuine enthusiasm here as compared with the New York show. As one of the exhibitors remarked:

"I've been in many cities, but in none of them has there been evinced the interest and the quick mastery of motor vehicle principles and details of construction shown in Philadelphia. If your city does not shortly take the lead in automobiling I miss my guess."

H. A. Knox, of the Knox Automobile Company, observed to the Motor Age representative: "You may say that if the future bears out the promise of the present week we shall seriously consider the advisability to petitioning the Philadelphia city council to change the name of the town to Knoxville. Both our exhibition machines were sold before the show was two days old."

Realizing the business possibilities here, it was a noticeable fact that after Monday all the larger exhibitors hastily increased their forces of "demonstrators." Some exhibits were exploited during the week by as many as ten experts.

Many New Yorkers, while they claimed a larger building and larger crowds, were forced to admit that the Garden show was "dead" in comparison with this humble effort of the Pennsylvania Automobile Club. One Gothamite actually said to the Motor Age correspondent: "This is the greatest exhibition of automobiles ever held in this country, not only as a show, but as a business and advertising proposition."

Hair-Raising Track Contests

The fourteen-lap track—an 18-feet-wide affair, and as flat as a flounder—while filling the bill as a motor vehicle promenade, was hardly suitable for races; notwithstanding which the management promoted a series of pursuit contests, one of which on Thursday night came near having serious results. It was a mile pursuit race between electrics, and one of the vehicles, the entry of the Pennsylvania Electric Vehicle Co., was operated by a genius who evidently thought he was on the Washington Park track, Chicago, for he "threw her wide open" and sailed after his opponent. After a lap or two of hair-raising grazes of the rail, the vehicle began running on its starboard wheels and an instant later plunged into the rail at the northwest turn, bowling over fully a dozen spectators in its flight. A Mr. Jarden and his wife were seriously injured and a half-dozen others were bruised and cut. That put a stop to the racing for the rest of the week.

Some of the earlier contests proved quite interesting. On Tuesday night the Knox three-wheeler furnished a surprise party to the real "hot dogs." After handily disposing of the Orient vehicle, the Knox tackled the "great white Gasmobile," in which "Bob" McCurdy had very neatly trimmed up the DeDion-Bouton motorette. From the start the trim little three-wheeler began to eat up the space separating it from its huge adversary, and had put about 80 yards to its credit when a too close turn brought the rear wheel in contact with a post on the inner side of the track. The machine was not injured in the least, but the operator slowed down, losing all his lead and a little more. With but another lap to go, it was impossible to regain the loss, and the contest was awarded to the Gasmobile, time, 2:05, notwithstanding Mr. Knox's protest. After the race all kinds of money were flashed and defies hurled for a race between the two machines for one, five, ten, fifty or a hundred miles for five times as many dollars, and if the thing can be done it may be that next week will see the question of superiority decided.

Other races during the week resulted as follows: Orient tricycle defeated DeDion-Bouton in pursuit race in 2:25¾. Orient electric wagon won coasting contest from the Fulton & Walker and three Columbias. Locomobile won the "disrobing" race, beating the Howard and the Foster. A Columbia won the brake contest, stopping in 19 feet 3 inches.

The Armory floor is in bad shape as the result of the week's track work, and it will cost somebody not a few dollars to put it into condition again.

AUTOMOBILE EXHIBITS

Diebel-Eppler Mfg. Co.

This Philadelphia concern, whose specialty is automobile running gears and parts, started about three weeks ago to put together a gasoline vehicle of its own design, hoping to finish it in time for the show. It succeeded, by dint of working night and day during that period, in accomplishing its task, but the result, while very neat, light and

compact in outward appearance, is not quite satisfactory to the maker, and some radical changes will be made in the disposition of the motor, which, as at present located, causes entirely too much vibration. The vehicle is called the Fairmount, and its work on the track struck the average spectator as being entirely satisfactory. Running gears and parts were also shown. H. P. Cox, secretary-treasurer of the concern, had charge of the exhibit.

Electric Vehicle Co.

Neatness combined with simplicity were the features of the large exhibit of the Electric Vehicle Co., represented locally by the Pennsylvania Electric Vehicle Co. A. W. Gilbert, of the home office, a veteran in the matter of exhibitions of this character, dropped into town on Friday, and by mid-day Saturday had put his vehicles into position ready for the crowds, his fellow-exhibitors to a man being still in the throes of preparation. Electrics seem to be favorites with a certain class of Philadelphians, and this exhibit—which includes victoria, phaeton, runabout, cabriolet, surrey, hansom and delivery—was constantly surrounded by interested crowds intent on gaining knowledge of these vehicles of proved excellence.

H. B. Hart

After a successful week at the Third Regiment Armory show, it was an eleventh-hour determination to exhibit at the automobile show which relegated the veteran Hart to an out-of-the-way corner under one of the stairways; but with the aid of electricity and some rapid and judicious decorative work his booth presented a fairly acceptable appearance. The Grout Bros.' (Orange, Mass.) New Home steam wagon was the Hart contribution to the mighty collection of self-propelled vehicles under the armory roof, and this, in connection with the Thomas Auto-Bi and Auto-Tri, gave him and his assistant, the genial "Billy" Taxis, of circuit fame in the dim and misty past, taking points galore.

Fulton & Walker Co.

This firm's specialty—their trade-motto, indeed—is "wagons for business.' While no business vehicle (in the ordinary sense) was included in their exhibit, the handsome and practical electric ambulance shown made full amends for any shortcomings in this respect. This vehicle is completely fitted up, and is so arranged that four patients may be accommodated at one time. Medicine chests, stretchers, inside and outside electric lights and all needed appliances make it the acme of perfection in its particular sphere. Light for its size—2,900 pounds—it has a traveling radius of 30 miles with one charging of its batteries. Fulton & Walker, while comparatively new at the work of building automobiles, have turned out some specimens, designed especially for business, which compare favorably with anything manufactured in this country.

Hinchman & Hawkins

This concern runs the Philadelphia Automobile Station, and in addition exploits locally the Oakman motor vehicle, which formed the main portion of its exhibit.

Howard Steam Wagon Co.

Johnny Wells, long identified with the local agency for Rambler bicycles, is the Philadelphia agent for this vehicle, which was shown in two models of stanhopes, with and without falling top. Small and neat, the Howard is yet so simple in construction that Manager Wells in navigating the track with a prospective customer seated by his side frequently gave the levers into the tyro's charge. This machine has many conveniences which other steam wagons have not, such as electric bell, extra throttle valve, etc., which gave Mr. Wells and his assistants talking points, of which they took full advantage.

Kensington Automobile Mfg. Co.

The one specimen of the Kensington steam runabout which reached the show in time to be put on exhibition came in for a great deal of favorable comment. It is of 4½ horsepower, with tank capacity of 30 miles water and 50 miles gasoline, extremely simple in its workings, compact and neat. L. E. French, the local agent, was in charge of the exhibit. He will be associated with Charles

L. Schwarz, 317-319 N. Broad street, a carriage manufacturer, who will hereafter devote a great portion of his energies to the building of gasoline and electric wagons.

Locomobile Co. of America

This was the largest and at the same time the most comprehensive exhibit in the show—1,200 square feet of space being devoted to setting forth the beauties of the "Loco." The feature of exceptional interest in this display was the sectional carriage demonstrating the mechanism of the Locomobile engine. The company's standard patterns were all shown, including a station wagon carrying six passengers, a new style delivery, three runabouts, two surreys, and two top carriages. The "Loco" headquarters were given a particularly solid and dignified appearance by the substantial-looking columns supporting electric signs in colored glass. The manager of the Philadelphia office was assisted by several New Yorkers in doing the honors.

Knox Automobile Co.

This agile three-wheeler—which was the hit of the Cycle Board of Trade show—was represented by its builder, H. A. Knox, who came on from the Springfield (Mass.) factory to do the strong talking. When there isn't a Knox vehicle speeding around the track the show is closed and the lights are out—from 60 to 75 miles per diem, odometer measurement, being the average. As in last week's show, the Knox's ease of manipulation gained for it many adherents, the facility with which it could be wriggled in and out and around the constant procession of vehicles on the track, being the subject of constant comment by the onlookers. W. E. Roach is the local agent for these machines.



THE PHILADELPHIA SHOW IN THE SECOND REGIMENT ARMORY

Maurice Loeb

This concern is the Philadelphia agent for the DeDion--Bouton Motorette Co.,

the Marlboro Automobile & Carriage Co., and the Century Motor Vehicle Co., specimens of whose vehicles were exhibited in a handsomely decorated booth (in Philadelphia's municipal colors) inside the track. This firm also showed a comprehensive line of automobile accessories, including Gray & Davis lamps, Gleason-Peters pumps, gradometers, and the Lumkenheimer engineering appliances. This was the only exhibit demonstrating the possibilities of all three of the recognized motor powers for automobiles. The DeDion line is quite complete, including, as it does, tricycles, quadricycles, surrey, doctor's coupe, brougham, New York and Brooklyn styles of motorettes and delivery wagons. Frank T. Craven, of the New York office, was temporarily imported to explain the beauties of the DeDion-Bouton output to inquiring Quakers.

Manufacturers' Supply Co.

This concern handles and exhibits the Fanning electric runabout, a remarkably handsome Chicago vehicle weighing but 850 pounds. An unfortunate phase of the early days of its exhibition here was the fact that it was batteryless. It had been shipped from New York sans this very necessary portion of its outfit, but when, after some tall telegraphing, the omission was made good, its speed and easy-running qualities at once installed it as a favorite. Mr. Odell, manager of the company, was ably assisted by Herbert Bilyen in demonstrating the Fanning's good points.

Milwaukee Automobile Co.

This concern was represented by its Philadelphia agents, John S. Leng's Son & Co. Two styles of handsome runabouts were shown.

Mobile Co. of America

Situated directly at the foot of the bridge spanning the track, the display of the Mobile came in for no small share of the attention of the public. Nine of the company's vehicles designed for various uses were shown, including runabouts, stanhope, and the delivery wagon of the New York World (one of an order of twenty filled for that thriving metropolitan journal). The several track Mobiles, used for the special purpose of giving prospective purchasers a foretaste of the joys in store for them, were evidently overworked. The Mobile attendants seemed to be particularly busy in this respect.

Motor Carriage Co.

Electricity, steam and gas—these are the three levers with which this recently established Philadelphia concern hopes to force its way into the rapidly growing local automobile trade. With "Bob" McCurdy, the old-time racing man (and later of the Mobile) as his right bower, H. P. Feister, the head of this concern, will during the coming season make a strong bid for business here, which thus early in the year gives promise of a successful outcome. The display of this enterprising concern included not only the entire line of the National Automobile & Electric Company, of Indianapolis, Ind., but the Bar Harbor steam vehicle and the Gasomobile, the latter while on the track attracting much attention by reason of its speed and beauty of design. Manager McCurdy is popularizing the vehicles handled by his concern, and reports several sales during the show.

Turner Automobile Co.

One vehicle—that had been run over 3,000 miles in one year—was shown by this concern in a hastily improvised booth near the main entrance. The body is of basket work and the weight of the machine equipped for the road is but a trifle over 300 pounds. It is propelled by a three-horsepower gasoline motor, and is called the Turner Gadabout.

Overman Automobile Co.

No exhibitors of steam automobiles in the show gave a better exposition of the details of their machinery than did the Victor people. One of their two exhibition machines was entirely stripped and mounted on a frame in order that a practical demonstration of the working parts might be given the crowds of interested spectators who constantly surrounded the booth. Local operators of steam carriages were constantly on hand getting "pointers" on the numerous improvements claimed for the Victor, and some of the more ingenious will



Chicago Show Bulletin

Reduced Railroad Rates

Partial List of Exhibitors

FIRST NATIONAL

Automobile Exhibition

CHICAGO COLISEUM

MARCH 23-30



A National Exhibition

The right time for the trade

The right time for the public

List of Exhibitors

UP TO MONDAY LAST SPACE HAD BEEN SECURED BY THE FOLLOWING:

Mobile Co. of America, Tarrytown, N. Y. Steam Carriages.
Woods Motor Vehicle Co., Chicago. Electric Vehicles.
National Automobile & Electric Co. Indianapolis, Ind. Electric Vehicles.
Hewitt-Lindstrom Motor Vehicle Co., Chicago. Electric Vehicles.
Acme Gasoline Engine Co., St. Louis. Gasoline Motors.
Badger Brass Co., Kenosha, Wis. Solar acetylene automobile lamps.
Baldwin Automobile Co., Connellsville, Pa. Steam Vehicles.
H. F. Borbein & Co., St. Louis. Running gears.
Brown-Lipe Gear Co., Syracuse, N. Y.
Century Motor Vehicle Co., Syracuse, N. Y Steam Vehicles.
B. V. Covert, Lockport, N. Y.
Crest Mfg. Co., Cambridgeport, Mass. Gasoline motors.
De Dion-Bouton Motorette Co., Brooklyn. Gasoline Vehicles.
Diamond Rubber Co., Akron, O. Diamond pneumatic tires.
Eastman Automobile Co., Cleveland. Steam vehicles.
Fanning Mfg. Co., Chicago. Electric runabouts.
B. F. Goodrich Co., Akron, O. Goodrich pneumatic tires.
Gray & Davis, Amesbury, Mass. Carriage and automobile lamps.
Hartford Rubber Works Co., Hartford. Pneumatic tires.
Kelly Handle Bar Co., Cleveland. Automatic pilot light for boilers.
Milwaukee Automobile Co., Milwaukee. Steam vehicles.
Moffett Roller Bearing Co., Chicago. Roller bearings for automobiles.
H. C. Mueller, Milwaukee. Electrical supplies and storage batteries.
Munger Vehicle Tire Co., New Brunswick, N. J. Non-collapsible pneumatic tires.
Olds Motor Works, Detroit. Gasoline vehicles.
Patee Bicycle Co., Indianapolis. Motor bicycles.
Pennsylvania Automobile & Gear Co., Reading, Pa.
Remington Automobile Co., Ilion, N. Y. Steam vehicles.
Steam Vehicle Supply Co., Oswego, N. Y.
Ralph Temple, Chicago. Electric, steam and gasoline carriages, motocycles, parts and accessories.
E. R. Thomas Motor Co., Buffalo. Motor bicycles and tricycles.
Waltham Mfg. Co., Waltham, Mass. Motor bicycles, tricycles and quads.

TWO SPACES ONLY REMAIN UNOCCUPIED IN THE ACCESSORIES DEPARTMENT ON THE GROUND FLOOR

Chicago Show Bulletin

FIRST ANNUAL NATIONAL

Automobile Exhibition

THE COLISEUM

MARCH 23-30

Sixty thousand square feet of space on ground floor.
Ten thousand additional in gallery.

RAILROAD ARRANGEMENTS

THE CENTRAL PASSENGER ASSOCIATION } have
THE SOUTHWESTERN PASSENGER ASSOCIATION } granted a rate of one fare and a third for the round trip. Other Associations have the application under consideration. For further details write for Weekly Bulletin or watch the Press.

THE WEEKLY BULLETIN

of which ten thousand copies are issued, will give all details of railroads rates, hotels, exhibitors, show arrangements, track events, etc., etc. Dealers and other prospective visitors are invited to send their names for weekly copies.

FOR OTHER DETAILS ADDRESS

MOTOR AGE MONON BUILDING **CHICAGO**

The March Programme

MOTOR AGE invites the trade to take advantage of the interest in the Show, public enthusiasm, and the boom in the western trade.

The total circulation of MOTOR AGE during March will be

110,000 COPIES Guaranteed

distributed as follows:

For the week ending March				**9**	**-**	**-**	**20,000**
"	"	"	"	**16**	**-**	**-**	**20,000**
"	"	"	"	**23**	**-**	**-**	**25,000**
"	"	"	"	**30**	**-**	**-**	**45,000**

From March 23 to 30, Sunday excepted, MOTOR AGE will be issued Daily and will contain the **Official Catalogue** of the Show—the only one to be issued.

No additional charge to regular advertisers for the weekly issues.

For rates and other information the trade is cordially invited to address

Motor Age **Monon Building** **Chicago**

undoubtedly endeavor to incorporate a few of them into the machines they now own. The automatic features evidently impressed local chauffeurs, the steam water and air pump, electric lighting of gauge dials, fire accelerator and fire regulator of the Victor being favorably commented upon.

Searchmont Motor Co.

This Philadelphia concern has had a mighty struggle finishing its first vehicles in time for the two shows held in this city—indeed, it was not till the Third Regiment armory show was half over that vehicle No. 1 arrived from the factory. At the last exhibition, however, two machines (gasoline) were shown—five and ten-horsepower, the former at $750 and the latter at $850. The strong talking points of these machines are taken advantage of to the full by E. B. Gallaher, M. E., vice-president and general manager of the company, who, with a strong force of assistants, was kept busy during show hours explaining their perfections. Three gears—a maximum forward of twenty, a hill-climbing of five, and a reverse of five miles—is a feature of its equipment which is well shown.

Skene American Automobile Co.

One of the simplest steam vehicles in the show was the Skene, two styles of which, the open stanhope and the top stanhope, were exhibited. Enameled in brilliant colors, and all exposed parts nickel plated, combined with high-class upholstering, make these vehicles particularly attractive looking. A miscalculation on the part of the railroad officials tied up four Skene machines somewhere between Springfield and Philadelphia, and a space big enough to comfortably exhibit half a dozen vehicles looked bare with but one, the other one being constantly on the track. R. H. B. Warburton, who had charge, devoted his energies, however, to the machines he had, and reported excellent results for his week's work.

Standard Motor Vehicle Co.

The product of this Camden (N. J.) concern is coming in for no end of favorable comment as a result of the two weeks' display of its merits to the Philadelphia public at the rival shows. Costing but $500, and weighing but 550 pounds, with guaranteed 4½-horsepower, the Standard has sprung into popularity at a bound. Speeds of from four to twenty miles an hour are obtainable with but little odor and a minimum of noise even at the highest speed. These vehicles are shown, and the company announces its ability to make prompt deliveries. The fine points of the Standard vehicle were made plain by Messrs. Cole, Kull and Egan, who alternated in doing the honors.

Thornycroft Steam Wagon Co.

But one vehicle made up this exhibit, but the size of that one made amends for the lack of quantity. It is a large auto-truck, the first one to be seen in this city, and in its peregrinations, not only around the track, but along the business streets of the city, it attracted much more attention than the more numerous automobiles. Operated at a cost of 4.2 cents per mile, the Thornycroft wagon came in for no little attention from business men, who examined it critically, with a view to possible future experiments to replace horse-drawn trucks for heavy work.

Union Motor Truck Co.

This concern's exhibit did not arrive till late in the week. The reporter was given to understand that the exhibition vehicle was not finished in time for installation at the opening of the show. It had not arrived Friday afternoon.

R. C. Wall Mfg., Co.

Temporarily crippled by last year's fire, which compelled it to seek new quarters, this concern is now on the broad road to prosperity. Despite the hardest kind of work, however, the show was half over before its first vehicle was finished and placed on exhibition. It is a remarkably handsome and light runabout of four-horsepower. In addition, there were shown complete running gears, motors, compensation gears, bodies, mufflers, steering knuckles, wheels, rims and hubs, all of the

company's own manufacture, besides the Appleby roller motor chain and Dunlop tires, both of which the concern represents in this city. A lot of special work, including the building of motor cars to be used on a 24-gauge private railroad, necessitates the running of the plant night and day. Mr. R. C. Wall is in charge.

John Wanamaker

With the aid of his large force of decorators and electricians Philadelphia's merchant prince succeeded in making his exhibit quite the handsomest in the building. A huge electric sign extending the whole length of the stand, about 40 feet, attracted the attention of the visitor at once. No one seems to understand the efficacy of handsome surroundings quite so well as does Mr. Wanamaker's heads of departments, and the result was an artistic effect quite in keeping with the quality of the vehicles shown, which included the Orient runabout, victoriette, carrier, motor bicycle, tricycle and quadricycle and pacing tandem, in addition to the Foster steam runabout, surrey and delivery wagon. Manager J. S. Bunting was in charge, assisted by W. Wayne Davis, the erstwhile famous bicycle trick rider.

Wharton & Wright

This concern, which holds the local agency for the Winton Gasoline and the Steam Vehicle Company of America, manufacturers of the Reading Steam Carriage, had two specimens of each in their handsome booth in the center of the track. The big and powerful Winton, which Mr. Wharton, the head of this firm, handles like a veteran, was evidently a great favorite with the ladies, and was constantly in demand for track work. Charlie Church, the fastest professional cycle racer hereabouts for several years, assisted Messrs. Wharton & Wright in demonstrating the abilities of the two styles of machines handled.

Woods Motor Vehicle Co.

As was the case at the Cycle Board of Trade show last week, the Woods exhibit was by far the most comprehensive of the show. Unable to get all the space necessary in the inner circle, Manager C. R. Overman, of New York, who was in charge of the exhibit (despite a severe attack of rheumatism), was compelled to secure an auxiliary space in the extreme northwestern corner of the building, where the "Woods Annex" was established for the week. The twelve handsome exhibition vehicles were equally divided between the two sections. The exhibit included road wagon, brake, stanhope, country sub-wagon, mail phaeton, brougham cab, hansom, victoria, landau, wagonette and delivery.

MATERIALS AND ACCESSORIES

Columbia Lubricants Co.

In a neatly arranged booth near the main entrance this concern showed a line of oils and greases especially adapted for automobile bearings, cylinders and gears.

Diamond Electric Co.

This concern furnished the electricity for the show, a handsome booth, where an electric charging plant for automobiles had been installed, being brilliantly decorated with various fanciful moving and stationary electrical designs.

Joseph Dixon Crucible Co.

With a line of graphite lubricants manufactured especially for use on vehicles and in all cases where chains are utilized in the transmission of power, a feature was made of the Pure Flake Graphite prepared especially for use on the running and wearing parts of all the different types of automobiles. Lewis Moore, a veritable human talking machine, did the honors.

Dow Portable Electric Co.

The electrical equipment necessary for the sparking of the gasoline engine was shown here in all its details, the various batteries, coils, plugs, etc., coming in for an unusual degree of close examination by those who are anxious to learn the "true inwardness" of the automobile. The electric hand lamp, a handy device for safely examining the interior machinery of automobiles where a naked lamp might engage in some misunderstandings with gasoline or other ticklish oils, was very favorably commented upon. W. E. Morrison, president of the

company, was assisted by E. Alfred Mallette, M. D., manager for Pennsylvania, Maryland and Delaware, in the explanatory work.

Motor Vehicle Power Co.

Gasoline motors for vehicles, boats and stationary purposes, were shown by this concern, which has its factory in this city. Those who contemplate building vehicles of their own found much to study at this exhibit, a specialty being made of separate gears. This firm's mixing valve also came in for much favorable comment by those who have made a study of gasoline motors. Lewis Langdon, manager of the concern, had charge of the exhibit.

Janney, Steinmetz & Co.

Cold-drawn steel boiler shells for automobiles formed the bulk of this local firm's exhibit. The entire line, ranging from 10 to 20 inches internal diameter, was included, with the flanged heads to match. Compression tanks from 5 to 16 inches and various castings for automobile parts in steel and malleable iron were also exhibited.

Palmer Bros.

Bicycle, tricycle and marine motors, besides engines designed for automobile and stationary use, are the specialties of Palmer Bros., of Mianus, Conn., whose exhibit occupied a rather small space under the northern gallery. One feature of the display was the first marine motor built by this concern, nine years ago. It was used on the boat "Pioneer" and propelled it full 9,000 miles in that time, and is yet in good condition. The Palmer vaporizer was also shown.

Reading Automobile & Gear Co.

Automobile gears suitable for steam, gasoline and electric power were shown by this concern, of which Schrichter & Le Cato, the original promoters of the show, are local agents. "Jack" Greer, the well-known cycle salesman of years agone, was in charge of the exhibit.

Rice Sparker Co.

This concern, which was a rather late arrival, showed its improved sparker, for which positive motion and absolute reliability are claimed, with no springs or platinum. This concern is located at Edgewater Park, N. J., and John V. Rice, Jr., demonstrated the superiority of the Rice sparker over others in the show.

W. F. Rudolph

Special automobile building and repair work was demonstrated at this booth, which was also devoted to an exhibition of the wares of the Rudolph & Summergill Tubing Co., a local concern which manufactures seamless tubing of various metals. Joseph B. Burns, a local painter who makes a specialty of automobile painting and enameling, also showed a specimen of his handiwork.

A. L. Smith & Co.

Nothing in the accessories displays attracted more attention than the exhibit by this firm of flexible metallic tubing manufactured by the United Flexible Metallic Tubing Co., Ltd., of England. This tubing, made entirely of metal (either steel or copper) lasts indefinitely, and is quite as flexible as rubber hose. It is especially designed for handling steam, compressed air, water, gas, oils, etc., and is therefore suitable for many purposes in connection with automobile work. Many visitors could hardly be convinced that there was no rubber in the internal make-up, of the smaller sizes especially. The list prices of this tubing ranges from 15 cents per foot for quarter-inch steel for gas work, etc. (copper 25 cents per foot) to 4-inch copper for steam, compressed air, etc., at $10.15 per foot, internal measurement.

Consolidated Rubber Tire Co.

A comprehensive exhibit of solid rubber tires was the "Rubber Family" of this concern, which has a Philadelphia branch at 315 North Broad street. These tires range in size from ¾ to 4 inches, and give the visitor an excellent idea of the virtues of the Kelly-Springfield line. The local manager, Frank A. Kissell, was in charge.

N. Y. Belting & Packing Co.

A feature of this display was the floor covering, made of the company's famous interlocking rubber tile, which gave it a handsome, mosaic appearance. A

complete line of carriage and automobile tires, including the semi-pneumatic, practically puncture-proof tire, designed especially for self-propelled vehicles, was ably exploited by the attendant, F. W. Winterstein, who is connected with the Philadelphia branch.

Diamond Rubber Co.

The continuous air chamber feature of these tires was lucidly explained by S. F. Vandorf, Jr., and J. A. Green, who were in charge of the exhibit. A full line of Diamond double tube tires was shown.

Delaware Rubber Co.

The same exhibit which attracted so much attention at the recent Third Regiment armory show, N. T. Tichenor in charge, claimed for his company the largest tire business in the east. Various sizes of bicycle, automobile and horse-drawn vehicle tires were shown.

Goodyear Tire & Rubber Co.

Davie & Co., the Philadelphia representatives of these goods, had a neat exhibit at the right of the Broad street entrance, where were shown the various tires of solid rubber manufactured by the famous Goodyear concern. J. H. McCullough extolled the virtues of these tires entertainingly.

Hartford Rubber Works Co.

The local branch of this concern exhibited a comprehensive line of Hartford automobile, motocycle and carriage tires, besides rubber mats and other rubber vehicle fittings.

Blaylock & Blynn

This Philadelphia house had a fetching exhibit of specialties in the way of fur and leather coats and caps, robes for men and women for use in automobiling, which it imports and manufactures. A display that was constantly surrounded by a host of inquirers for tips as to proper automobile dress.

Keyser & Rogers

In its especial line of automobile trimmings this local firm evidenced its ability to furnish anything required. Various specimens of beautiful leathers, carpets, cloths, etc., for upholstering self-propelled carriages were shown. This concern not only manufactures carriage trimmings, but imports goods and novelties required in the furnishing of the most expensively fitted up automobiles. In all, a very comprehensive exhibit.

R. E. Dietz Co.

Lamps, especially automobile lamps, made up the exhibit of this firm. Seekers after light invariably lingered at this booth examining the details of the lamps. A small exhibit, it was a particularly effective one.

Jensen & Grossman

Automobile and carriage robes and rugs of imitation buffalo, besides angora and sheepskin mats of all colors and styles, constituted the exhibit of this concern, whose factory, located here, is kept busy on this branch of work. M. L. Grossman was in charge.

Liberty Bell Co.

Bells for bicycles, bells for motocycles and bells for automobiles, and in various sizes for each particular service, were shown here. It was the subject of remark that the Liberty bells emit a peculiarly powerful sound, when their size is considered, and the ingenious rotary arrangement of the auto bell, worked with the foot, by which the peal is given a continued sonorous quality, caused much favorable comment among those who are likely to find use for such. Veeder odometers and fixtures were also shown. M. J. Horton, from the home office, had charge of the exhibit.

Rose Mfg. Co.

Huge electrically lighted lamps, built after the well-known design of the Newmont product, were the distinguishing features of this exhibit, which included bicycle, carriage and automobile lamps of various styles. These immense lamps stood up out of the wilderness of exhibits like huge beacons to beckon the wandering visitor within range of the dulcet voices of Manager H. C. Rosenbluth and his able assistant, E. N. Silberman, who, as demonstrators of the virtues of their wares, were without ri-

vals among the host of experts on the huge floor of the armory.

The Press

Among the automobile journals which were represented here during the week were: the Automobile Trade Journal American Automobile, Horseless Age, the Automobile, the Hub and the American Inventor. Besides which the North American, a local daily which is making a strong bid for patronage, occupied a handsome, electrically decorated booth in which was installed the Locomobile which is to be awarded to the lucky one who guesses nearest to the actual number of North American coupons deposited in a box inside the building.

Picked Promiscuously

Some of the Quaker City girls started a mileage contest during the show. One of the prettiest ones claimed 24 miles as her total for one night, fifteen different vehicles contributing to this aggregate. It was amusing to witness the look of studied indifference assumed by those who took their first ride in an automobile—that "unconscious look," as if they had been used to that sort of thing all their lives.

The big Gasmobile with its colored tiger in the rear was a favorite with the females who wanted to put on style.

Not a few of the demonstrators affected frock coats, white vests and ties, no hats, and—last but not least—a diminutive tuft of whisker on the lower lip. They were so evidently copying after somebody that the "uniform" became the subject of remark.

The exhibitors of the Knox gasoline evidently had instructions to keep their machine going all the time. It was first on the track in the morning and the last off at night. Even at moderate speed it averaged between 65 and 70 miles daily. Mr. Knox said he had a grumble coming, though, at the action of the managers in handicapping his machine in the obstacle contests. They placed the barrels closer together because his was a three-wheeler. He kicked—but won the contest all the same.

President Sweany, of the Pennsylvania Automobile Club, who was the presiding genius of the show, did the honors for a number of visiting delegations of automobilists from other cities. He and the other members of the committee were warmly congratulated on the success of the show.

Space was so valuable that the band was forced to spend the week in a hastily improvised stand over the western entrance, reachable only by means of a ladder.

Frank T. Craven, who is credited with the record from the Staten Island Ferry to the Waldorf-Astoria, five miles, in 17 minutes, was in evidence all the week at the DeDion-Bouton exhibit.

"Bob" McCurdy is authority for the statement that the Motor Carriage Co., with which he is now connected, will in a few days open large salesrooms at 1313 Arch street, where it will carry a full line of Gasmobiles, Bar Harbors and National electrics.

The committee's prohibition of races owing to Thursday night's accident prevented what promised to be a hot race between the Orient and Thomas motor bicycles, which was down for Friday night. The adherents of each still have chips on their shoulders, and have agreed to fight it out at the first favorable opportunity.



News of the Industry

NEW YORK, Feb. 9.—Col. George Pope, first vice-president of the American Bicycle Co. was seen by a Motor Age man today in reference to the new Automobile and Cycle Parts Co., in which the A. B. C. holds stock to an extent the Colonel would not disclose.

"The new company," said he, "will sell parts to all comers. Automobile manufactures, to a considerable extent, will take the form of assembling, the makers buying whatever parts their own factories do not make. I do not think the Parts company will include motors in its output, however."

Questioned as to the Automobile Patents Exploitation Co., the concern recently bought by the A. B. C. from Charles R. Flint, the colonel said that the Morgan steam carriage was one of the assets of the Patents company, but he really did not know whether the A. B. C. would build this carriage or stick exclusively to the Billing's wagon for its steam vehicle.

THE BOSTON SHOW

The assistant secretary of the National Association of Automobile Manufacturers has sent the following notice to members:

"At a meeting of the executive committee, held February 7th, 1901, the following resolution was adopted:

"Resolved, That this executive committee has looked into the question of the proposed Boston show, March 4 to 9, and feels that in view of the time and circumstances under which it was projected (having been inaugurated prior to the organization of this association and therefore coming under the resolution of January 18th, 1901) and that it is to be given under the auspices of the Massachusetts Automobile Club that it will be a show in which the manufacturers may find it to their advantage to exhibit, and that decision as to exhibiting be left to the individual members of the association.

"The executve committee has secured from Mr. C. W. Dimmick, the representative of this show, guarantee of a net rate for space to members of the National Association of Automobile Manufacturers, of seventy-five cents per square foot, and to any one member taking six hundred feet or more, a net rate of sixty cents per square foot; this being a material reduction in the rate originally asked."

HOOSIERS ARE ENTHUSIASTIC

Indianapolis, Ind., Feb. 9.—While not generally known, it is an established fact that *Indianapolis* has more automobiles than any city of its size in the country. Automobile dealers and manufacturers boast of this, and some say that the number of vehicles owned here will be increased by at least fifty before the close of the year.

Charles and George Koehring, proprietors of the Indianapolis Automobile & Bicycle Co., handling the Mobile, have done a good business and expect brisk trade for the remainder of the year. One portion of the store is devoted to automobiles and no less than fourteen are to be found there. Mr. Koehring stated that he would soon have six and nine passenger automobiles. The con-

cern is also selling the Orient motor bicycle, tricycle and quad.

The H. T. Hearsey Vehicle Co. is selling the Locomobile and the National Automobile & Electric Co.'s machine. The latter has proved a good seller and the Locomobile is favored here, many machines of that manufacture being owned by Indianapolis residents.

Carl Fisher, who is now with the Mobile people, spent a few days in the city the early part of this week. He reports business as being good.

L. M. Wainwright, manager of the local A. B. C. chain factory said that the automobile chain business never was better than it is at this time. "Our chains," said he, "are in demand from manufacturers throughout the country, and we expect to do a big business in that line this year."

The motor bicycle business in Indianapolis will be a big thing during 1901. Motor bicycles are being boomed to the limit and unless present plans fall through the Hoosier City will have more than any city of its size. The Indianapolis Automobile & Bicycle Co. has sold two Orients and an order for another was received a few days ago.

"We anticipate an excellent season," said Charles Koering, of the company, "and preparations to take care of a brisk trade have been made."

The George C. Detch Wheel Co. received, a few days ago, a Thomas motor bicycle. Several prospective purchasers have called and it is likely that Detch will dispose of several motor bicycles before the close of another month. The concern is negotiating with an Eastern company to sell automobiles.

George Habich, the West Market street sporting goods dealer, is selling the Mobile and has disposed of several carriages.

NEW HOUSE IN THE ROW

The Merkel Mfg. Co. has purchased the plant of the defunct Layton Park Mfg. Co. of Milwaukee, and. in addition to continuing the business formerly carried on at the factory, will enter the automobile and motor field. To the line of carriage and automobile hubs already made the new management will add air and water-cooled motors, and later on complete motor bicycles and tricycles, and possibly larger vehicles.

The company seems to be in good shape to take good care of the undertaking. It is financed, principally, by George Merkel, well known in this part of the country as an able business man. The mechanical part of the business will be in charge of the two sons.

J. F. Merkel has for a number of years been connected with the E. P. Allis and Nordberg Mfg. Co.'s, both of Milwaukee, and within the past two years has made a complete study of hydro-carbon motors. He is thoroughly informed as to their application to light vehicles and holds the distinction of having built and operated successfully the first motor tandem tricycle in Wisconsin. He is to be assisted by his brother, W. J. Merkel, who is a graduate of one of the best engineering schools, and has been connected with the engineering department of the General Electric Co., for the past few years.

THE INDUSTRIES OF READING

Reading, Pa., Feb. 9.—This city, once so prominent in bicycle manufacturing, bids fair to become a prominent automobile center as the old bicycle makers are rapidly turning their attention in that direction. The pretty little city of red brick, which nestles at the foot of the Gravity and Neversink mountains, is considerable of a manufacturing center, and its strong German and Dutch population are away up as mechanics.

Here can be seen the works of the Duryea Power Co. Charley Duryea cannot be said to be a Pennsylvania Dutchman, as Illinois claims him, but it is here he may be found when at home, and he is backed by people connected with the great iron and steel plant. When a Motor Age man called at the Duryea works he was shown around by Foreman Davis. He explained that Mr. Duryea was at Yonkers, N. Y., superintending the finishing touches to a boat which is to be shipped to California, so it seems

that Duryea is not in the vehicle business only.

Mr. Duryea's ideas, as is well known, run in the direction of a three wheeled or tricycle form of vehicle, and it was one of the latter with which Mr. Davis courteously provided the Motor Age man in order to enable him to get around town through the snow. It worked like a charm and there was not the least difficulty experienced in handling it. Mr. Duryea has somewhat modified his views in regard to the three-wheeler and will build four-wheelers as well, and the plant is now working on several of the latter for immediate shipment.

The Duryea plant is located above the Pennsylvania R. R. station, and at the foot of a grade, at the top of which stands a big brewery, from which one of the workmen claimed a small pipe line would be run during the warm months! The Duryea Power Co. is preparing for a good big business and those who know Charles Duryea will be glad to hear that he is at last in a position to produce the many good ideas he has long had on tap.

A concern that will soon be prominent in the industry is the Steam Co. of America, whose factory is at the old Packer Cycle Co.'s building. There the Motor Age man was permitted to go through the works and take note of all that was being done. To say that a surprise was in store is putting it mildly, for this concern has as complete a plant as any manufacturer could wish. Everything is made by the company except rims and tires. Several carriages were shown in a finished state, and many others in course of construction were being pushed to completion by a clean and capable looking lot of mechanics. The latter feature of the establishment will impress any visitor. The manager remarked that ten of the junior mechanics are students in a school of engineering.

The vehicles of this company were exhibited at Philadelphia last week, and it is expected that the company will show them at Chicago, where they will certainly command favorable attention. The factory is a most busy place, and the expedition with which it has been organized is an indication of what may be expected in the way of shipments from this time forward.

The Reading Automobile & Gear Co. is located in the old Reading Cycle Mfg. Co.'s factory out on Tenth street, and is presided over by that clever mechanic, J. George Ziegler, inventor of the Wyoma coaster brake. This company is turning out a goodly number of gears, a sample of which was seen at the recent New York show, and will be seen at Chicago also.

John G. Xander will start up an automobile parts making plant in Reading, and the old Reading bicycle superintendent can be expected to turn out something pretty good. Mr. Xander has been engaged in Lebanon with an automobile concern there several years, but at last decided to return to Reading.

Edwin Youse, who bought the Packer bicycle business is the Reading Locomobile agent, and is situated on Fifth street opposite the postoffice.

H. O. Coler, 6 South Fifth street, is the Winton agent for Reading, having four counties in the way of territory.

There is a rumor abroad in Reading that if the American Bicycle Co. closes the Stormer plant the Rebers, who formerly owned it, will engage in automobile building.

The Pennsylvania Gear Co. which has dealt in automobile gears, is at present out of business.

The Keystone Wagon Works, of Reading, is making bodies for automobiles. The handiwork of its men is seen in the bodies on the Duryea motor vehicles.

TRUCKS FOR THE WEST

The Milwaukee Automobile Co. having been called upon to provide a number of trucks for use in the hilly country of the west, has, with the assistance of Mr. Bodman, of Simpson & Bodman, of Manchester, England, recently conducted a series of careful experiments to convince the officers of the capacity of the machines to do the work required of them. The trucks have been made on the same plans as those to which Mr.

Bodman has been accustomed in the old country, and the question to be solved was whether they would prove successful under the different conditions as to roads and climate in this country.

The company now expects to close with three separate concerns for trucks to be used in the far west. One of the routes is that through the Yellowstone park. Another is the stage route of the Yosemite valley and the third is the bus route out of Flagstaff station, Arizona. The company is jubilant over the prospects and says that, once established, there is almost no limit to the probable demand which will spring up for motor carriages for various uses in the hills and on the plains of the far west. The officers are of opinion that, with the establishment of the great economy made possible by the use of steam trucks, all will be plain sailing and the supremacy of that form of haulage will be assured.

It is further reported that the works of the company are pressed beyond their capacity, that additions to the plant are contemplated and that additional capital is to be invested.

BALDWIN WORKS RESUME

The Baldwin factory, at Connellsville, Pa., has started up again. Creditors representing 90 per cent of the indebtedness have petitioned the court to allow the receivers to raise money on their certificates to carry on the work. In the meantime some of the stockholders have provided funds for immediate use, thus demonstrating their faith in their undertaking. At a recent meeting over $3,000 was contributed to the fund. The employes have been paid and everything is proceeding as if nothing unusual had happened.

GOOD MAN FOR THE BUSINESS

Charles F. Smith, who was for years the head of the well-known house of C. J. Smith & Sons, makers of brazed tubing and sheet metal cycle parts at Milwaukee, left the concern when the business was sold to the American Bicycle Co. and is now with the Premier Mfg. Co. preparing to manufacture automobiles. Mr. Smith has long been deeply interested in the subject and conducted a lot of experiments before he left Milwaukee. He is a mechanic from the ground up and one of those men who are wanted in the automobile business, for he will offer nothing to the public before he is thoroughly convinced that he is right. A contrary policy has already led many to wish that such a thing as an automobile had never been invented and many another will follow in the same channel.

WAG'S CHANGE OF BASE

Fred J. Wagner, who for the last ten years has been connected with the advertising departments of the Motor Age, Cycle Age and their predecessors under the same ownership, has at last forsaken the old friend for the new and gone to the Scientific American, for which excellent publication he will cover the greater part of the eastern territory, with headquarters at Buffalo. Chicago will remain his home, and he will spend about one week in each month in that city.

"Wag" leaves his old associates with their heartiest wishes for his prosperity. He has done good work for them for a great many years, work which it will take the best man in his line of business to duplicate and which has had a great deal to do with the success of the publications with which he has been associated. That his most sanguine hopes of success in his new field of work may be realized is all the harm those who have so long shared his troubles and his joys can wish him.

HAPPENINGS OF THE WEEK

The Non-Polarizing Battery Co., formerly of 625 Broadway, has removed to 447 Broadway, New York city.

The Akron (O.) Motor Carriage Co. completed its first vehicle a week ago and at once sold it to W. E. McIntosh. The company reports that it has been delayed by its inability to secure parts,

but that it will now largely increase its force.

The Snecker Motor Co. has been organized at Trenton, N. J., to manufacture motors and with a capital stock of $50,0000.

The Underwood Gas Engine Co., of Elmore, O., is making a gasoline vehicle which, it is claimed, will possess remarkable speed.

George Miller, an electrician, of Kenton, O., has just completed an automobile, an electric vehicle, the body of which was made for him by the Kenton Carriage Co.

Springfield, Mass., has an offer under consideration from an automobile manufacturer who wants to locate there on condition that the citizens subscribe $30,000 to the capital stock of the company.

So successful has been the business of the Grout Bros., of Orange, Mass., so far, that a number of extra men have been engaged and an addition to the buildings is talked of. The firm recently made a sale of ten vehicles to go to South Africa.

The recently organized Automobile & Cycle Parts Co., whose headquarters are at Cleveland and which recently purchased the parts plants of the American Bicycle Co., has been incorporated in New Jersey. Nominally it is the old American Saddle Co. under a new name. Among the signers of the articles were Col. George Pope and J. E. Bromley, both vice-presidents of the A. B. C.

Thomas B. Jeffrey & Co., who purchased the Sterling bicycle factory at Kenosha, Wis., and are preparing to make automobiles there, do not expect to be able to offer anything to the public for several months. "It will take that time," says Mr. Jeffery, "to make the necessary tests to be sure that all improvements are working satisfactorily. Satisfactorw progress has been made in producing a carriage somewhat better than any yet marketed and in laying out this factory to construct such vehicles in large numbers and at reasonable cost." Mr. Jeffery will attend the Chicago show in March.

The Sioux City Automobile Co., whose organization was reported last week, has hit upon the plan of offering to subscribers to the capital stock, automobiles of the same amount as their subscriptions. If the company is reduced to such measures at this early stage of its career it will prove a menace to the business and unprofitable to all parties concerned with it—except, perhaps, the promoters.

Manufacturers who are in need of representation in Chicago and other western cities will do well to give notice of the fact to Motor Age. Dealers who are seeking agencies are invited to adopt a similar course. Requests for information are frequently received from both classes and Motor Age has been the means of bringing together a number of concerns which have, in consequence, been able to deal to the advantage of both.

Oscar J. Schramm, 122 Fifth street, south, Minneapolis, has designed a motor to be attached to a bicycle, over which his friends are in great glee. It is designed to be attached to the ordinary form of machine, and according to the claims made for it weighs only twenty pounds. Seventy-five miles on a quart of gasoline and twenty miles an hour on all sorts of roads are said to be within its capacity. Northwestern cyclists are evidently deeply interested in the device and in motor bicycles generally.

It is reported from Stamford, Conn., that the International Power Vehicle Co. of New York, capitalized at $5,000,000, has opened a factory in that city for the manufacture of motor vehicles, delivery wagons, and trucks to be propelled by a compressed air system invented by H. G. Underwood, vice president of the company. The company will also make kerosene oil engines. W. P. Hatch, the president and treasurer, was formerly a member of the Elliott Hatch book typewriter concern. The directors are W. P. Hatch, H. G. Underwood, C. W. Hatch, of New York; J. H. Janman, of Hartford, and C. C. Isbell, of Boston.

BIG COMPANIES AT THE CHICAGO SHOW

There have been several applications for space at the Chicago show, to be held at the Coliseum from March 23 to 30, during the last week. As the time approaches the trade is becoming more than ever convinced that the event will be the selling show of the season. This is accounted for by the fact that it occurs at a more seasonable time of year than any of its predecessors, and that the management is leaving no stone unturned to secure the attendance of visitors from a distance.

Some time ago the Central Traffic Association, which embraces most of the roads entering Chicago, granted a reduced fare to the show. The management is now advised of similar action on the part of the Southwestern Association, and is assured that the others will follow the same course within a few days.

These concessions were obtained by the management because of its previous record in the matter of out-of-town attendance at shows held under its auspices. It is the first time the railroads have been induced to make such a concession for any automobile show. The rate will be one-and-a-third fare for the round trip. Circulars giving details will be furnished on application to the Motor Age and will be published in the Weekly Show Bulletin.

Among the more important companies to which space has been alloted during the last week are these:

Mobile Co. of America, Tarrytown, N. Y.

Woods Motor Vehicle Co., Chicago.

Hewitt-Lindstrom Motor Vehicle Co., Chicago.

These three companies will occupy over 3,000 square feet of space.

The Mobile company is preparing to follow up the advantages it obtained at the New York show, where the roof exhibition took the public by storm, by presenting features which are bound to attract attention. Among other things, it will establish a stage line between its branch store and the Coliseum and furnish free rides to its friends and the public. Five vehicles are being especially prepared for the show at the factory.

The Woods compauy has also a number of new vehicles in course of construction for the event.

The tire houses will be well represented. Three have already secured space and two others are known to have determined to take part in the exhibition.

It had not been intended to open the gallery to exhibitors. That course has been found necessary, however, and on Monday Ralph Temple applied for and was allotted about 3,000 square feet, in which he will take care of the exhibits of a number of firms who desire to be represented without the trouble and expense of sending representatives to Chicago from a great distance.

The management is in correspondence with a prominent member of the Automobile Club of America, who has had a great deal of experience in such matters, with a view to an arrangement with him to select and take charge of the track events. There will be no racing or other dangerous experiments, but it is intended that such events as are scheduled shall be of such nature as to furnish information to makers and users of vehicles.

The Milwaukee Journal reports that one of its reporters asked President Starkweather, of the Milwaukee Automobile Co., whether the company would be represented at the motor vehicle show to be held in Chicago in March and in reply said: "Yes, we will be there and we are going to surprise a good many people. We are building now, for a couple of automobile enthusiasts, two racing vehicles which we confidently expect will travel at the rate of a mile a minute."

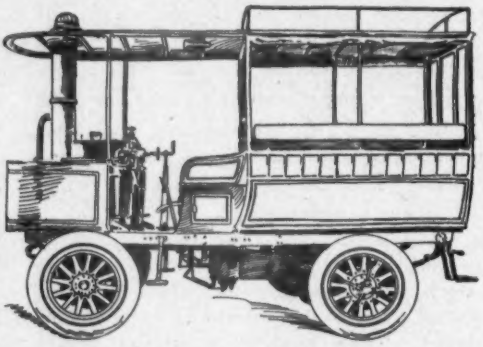
BIG BUSSES ON PNEUMATIC TIRES

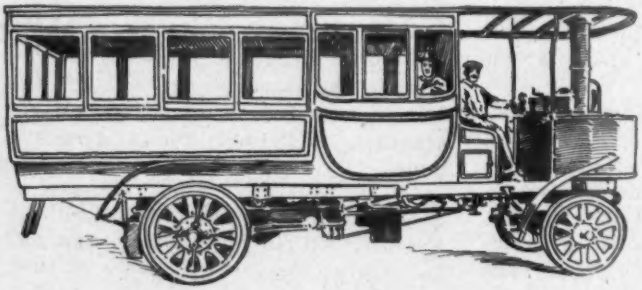
HEAVY steam omnibusses are not only made as samples in Europe now but are being turned out in goodly numbers for practical service in many countries. The De-Dion Bouton concern is of course among the leaders in this direction and its enterprise has not only been shown in the matter of numbers but also by the fact that it has recently equipped a huge 4,400-pound omnibus with 4½-inch pneumatic tires. This bus, which has made several successful long trial runs, is shown in the uppermost of the three accompanying illustrations.

The motor is 20 horse power, the casing is all made in aluminum, and the engine complete weighs 900 pounds. Sufficient water is carried to drive 20 miles without a stop, and a supply of coke for 62 miles is carried. The average speed on all kinds of roads is from 12 to 18 miles an hour, but on the high speed gear, "all out," on a level road the speed will often surpass 25 miles per hour.

Proficient French drivers handle this and other busses with a dexterity which is marvelous even in consideration of the exact obedience of mechanically correct controlling means. High speeds and sinuous paths are constant concomitants in the travel of the machines, and with pneumatics instead of unelastic solid tires the lot of the passenger is said by those who have ridden to be extremely pleasureable.

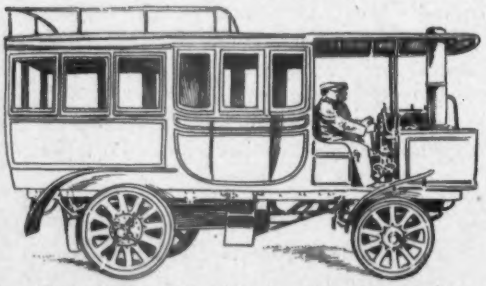
Another interesting pattern of omnibus recently built in France is shown in the second illustration which is one of a number of similar vehicles erected for service in Spain. This particular bus is





destined to carry royalty, for it was ordered for the particular use of the queen regent and the infant king of Spain.

The bus in the third illustration is intended for general use and, had it no other feature to brand it as European, the fact



that it has the first and second-class compartment which mark all European railway coaches would prevent misunderstanding concerning the seat of its origin. The front compartment with side doors is for the first-class passengers while those riding second-class occupy the rear compartment with side seats

and rear door. Baggage goes on top.

With the introduction of pneumatic tires on extremely heavy omnibuses it may be hoped that these tires will also soon make their appearance on many materially in the evolution of the latter form of vehicles.

NEW AUTO STAGE LINES

Men with money, at Gresham, Ore., are trying to organize for the purpose of operating a stage line for passengers and freight between that city and Portland.

Automobiles will be installed on the so-called Monida or Union Pacific route between Monida and Dwelles, Mont., as an experiment this season. The automobiles will not be used within the park proper, simply connecting Dwelles with the railroad.

The Painesville (O.) Automobile Co., formed to operate a line of vehicles, has been abandoned because of the failure of the firm to whom the order for vehicles was given to deliver them. At least that is the reason given by the local press.

H. L. and W. C. Bryant, of Brockton, Mass., who recently announced that they were interested in the formation of a company to operate a line of vehicles, are now preparing to go into the business actively. They have assured themselves of their ability to secure the automobiles they need at a reasonable price.

The Electric Cab Co., of Toronto, has rented the Cyclorama building on Front street, and will have vehicles of all kinds on the streets as soon as they can be obtained from the factory. At a recent meeting of the stockholders it was decided that, in view of the excellent support given the company by the public, the capital stock should be increased from $50,000 to $100,000 for the purpose of conducting business in other cities. The officers of the company are C. A. Ward, president; A. M. Thomson, vice-president; W. S. Jackson, secretary and treasurer.

The Times, of Jacksonville, Fla., reports that five freight cars loaded with automobiles passed through that city a few days ago bound for Miami, where they are to be used by the Automobile Street and Transfer Co. A similar line is in operation at Daytonia,, where five vehicles are used in the public service.

The city council of Urbana, O., voted to grant a license to the Illinois Motor Co. to operate four vehicles in that city and it is reported that the service will commence March 1. The mayor put a temporary check on the proceedings by refusing to sanction the plan on the ground that he feared the vehicles may be too heavy for the pavements.

Spearfish, S. D., Feb. 5.—A motor line connecting this city with the mining camps has long been talked of by the citizens of the different northern Hills towns, and it is thought that it would prove a successful undertaking. It is now rumored that Lead has subscribed $75,000 toward such an enterprise, and this city is to put up $60,000.

A report from Rawlins, Wyo., says that the owners of the Craig-Meeker stage route have arranged to replace the stages, drawn by four and six horses with automobiles with a carrying capacity of 2,000 pounds. The horseless wagons or stages will make a regular speed of fifteen miles an hour and deliver the mails in the northern Colorado towns one day earlier than at present.

The Rochester Cycle Mfg. Co. has issued as poster advertising for its handsome Rochester automobiles a well lithographed hanger presenting an up-to-date park scene in which a stylish Rochester carriage figures prominently.

THE MOTOR AGE

INFORMATION FOR BUILDERS AND BUYERS.

WITH a speed capacity of at least 25 miles an hour and a proved carrying capacity of 2,100 pounds, the Oldsmobile is now ready for the public. It is in the form of a runabout, is propelled by gasoline, and is made by the Olds Motor Works, of Detroit.

Several of these vehicles have been on the streets for some time and their action has satisfied the makers that they are quite ready for the public. Simplicity of construction is indicated by the accompanying illustrations. Lightness, within reason, and economy of operation have been the other points aimed at by the Olds company.

Once properly fed the vehicle will run about 150 miles without further attention, so far as the gasoline supply is concerned. A careful test was recently made of the amount of fuel consumed. The tank having been supplied with two gallons of oil the machine ran fifty miles in two hours and twenty minutes. The tank was then emptied and there remained three quarts of gasoline. The expenditure of fuel was therefore five quarts, of the value of about twelve cents, or something less than one quarter of a cent a mile—surely cheap enough traveling for anyone.

The motor used is one of the standard Olds motors, of four horsepower and has sufficient power to handle the vehicle on a twenty-five per cent grade and to give it, on decent roads, a speed varying from ten to twenty-five miles an hour.

The weight of the carriage is 580 pounds. To test its carrying capacity twelve men were placed upon one of them, weighing, as stated above, over a ton.

The body of the vehicle is mounted independent of the motor and running gear, being sustained by rubber cushions. The maker claims that all vibration is eliminated. The body is only about two feet from the ground, which makes it almost impossible to turn over. The vehicle is of regular wagon tread, 4 feet 7 inches. The wheels are 28 inches in diameter, with 2 1-3 inches heavy pneumatic tires. Transmission is by roller chain, of 4,000 pounds working strain and the brake is of sufficient power to slip the wheels in case of emergency.

FIFTY SEARCHMONTS EACH MONTH

A motor vehicle concern that has all the earmarks of success before it, is the Searchmont Motor Co. of Philadelphia, whose business office and works occupy three buildings on Orkney street. While in Philadelphia recently a Motor Age man visited the works, and was shown every attention by E. B. Gallaher, M. E., who is vice-president and general manager, and sure to become popular in the trade as he is a hard worker and the personification of courtesy.

At the board of trade show it was interesting to hear Mr. Gallaher explain the points of merit in the Searchmont wagonette. First he was engaged with millionaire Steven B. Elkins and the next moment was giving a little lecture on the company's motor, his audience being three ladies. The wagonette created favorable comment.

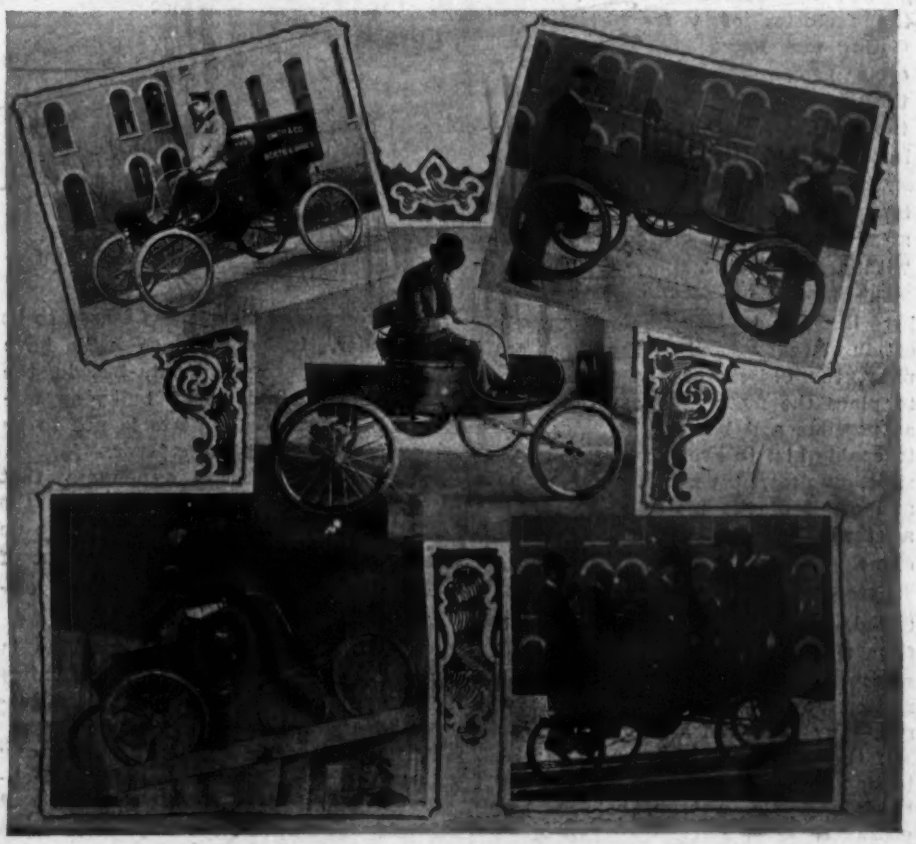
A visit to the works furnished proof that the company is manufacturing on a large scale, and the claim of fifty wagons a month after May 1st does not seem to be an impossible task. The name Searchmont was selected as a compliment to the successful Philadelphian, Theo. D. Search, also a millionaire, who is chairman of the Searchmont Motor Co.'s manufacturing committee.

In a trip through the factory, where seventy-five men were at work,—and the force being added to daily—the thoroughness of the company's manufacture was seen, for all the parts, except the wheels, are made by the company. All this has been arranged in nine months, a fact which speaks eloquently of the organizing amility of the manager, who, by the way, is a member of the Automobile Club of America, a New Yorker by birth, but a Philadelphian by adoption.

The Searchmont Motor Co. is much interested in the bill in the U. S. Senate to repeal the law against carrying gasoline or other oil vehicles on ferryboats, etc., and Mr. Gallaher wrote to Senator Matthew Stanley Quay, urging that the famous Keystone senator support the bill. The latter's reply was as follows:

"I have your letter of yesterday, and know of no reason why I should not support the bill you refer to."

The Searchmont wagonette is sold



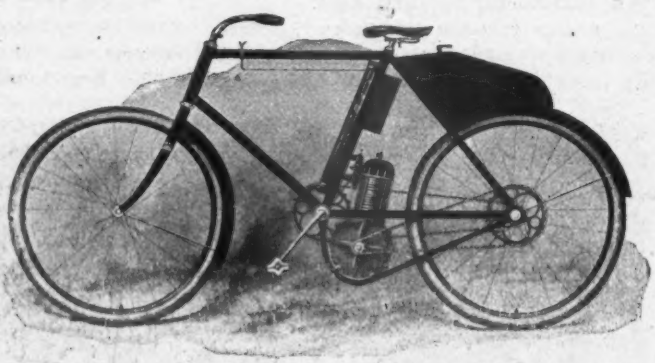
OLDSMOBILES IN INTERESTING POSES

at from $750 to $850 according to equipment, and the first impression a prospective purchaser gets is that he is getting plenty for his money. The vehicle looks worth all that is asked for it. The company will be glad to send its attractive little booklet to all who ask for it.

THE PATEE MOTOR BICYCLE

The Patee Bicycle Co. of Indianapolis, announces that it is ready with its motor bicycle.

Less than two months have elapsed since the announcement was made by this concern that it would put out a machine of this kind during 1901. The company therefore comes very near to having scored a record in the matter of prompt production. This has been accomplished by combining the factories of the Outing and Patee bicycle companies and the purchase of an establishment which had been devoted to the manufacture of motors exclusively, instead of experimenting with a new motor.



THE PATEE MOTOR BICYCLE

The new bicycle is here illustrated. The frame is a modification of that offered by the Regas company, the objects of the maker being to place the motor as near the ground as possible and behind the rider, so as to enable him to avoid, as much as possible, unpleasant proximity to the heat and smell of the motor and to secure a steady running, easily handled machine.

Patee has evidently read, and appreciated, the articles which have appeared from time to time in Cycle Age, for he gives great prominence, in his printed matter, to the assurance that "It will run,—any time and all the time."

If the machine is as neat as the illustration makes it appear, it has one great advantage, viz. a trim, handsome appearance.

Much attention has been given by the press to the sample of the Halflinger motor bicycle, recently exhibited at the New York show. It came as a surprise and was hailed as the proper thing, not because of any particular mechanical advantages,—for it was in all respects a copy of other machines,—but because all the parts were so nicely arranged that the appearance of the bicycle, as a whole, was about the most attractive thing yet shown. Whether the machine will be as successful as some others, or whether utility has been sacrificed to appearance, has yet to be demonstrated. The incident shows, however, how strongly inclined people are to be caught by appearance. In days to come, when the motor bicycle has ceased to be a wonder, its appearance will have ceased to cause comment, but in the meantime the necessarily bulky appearance of some of the parts is not to be considered a point in its favor.

The Patee company announces that "all wiring and piping is done on the inside of the tubes, so that there are no unsightly bunches of wire nor a lot of crooked tubes to detract from the elegant appearance of the machine."

The speed of the Patee machine is stated to be from four to thirty miles an hour. The carbureter carries a gallon of gasoline. The cost is $200.

The construction is heavy and strong throughout. The frame is made of inch-and-a-quarter tubing, of eighteen and twenty gauge, with heavy forks and

stays. The front fork crown is a drop forging of the tandem variety. Twenty-six-inch wheels and two-inch tires are used.

As a result of the publicity already given the Patee motor bicycle by the press, the company has received a great many applications for details. Agents are anxious to close, and some have already placed orders without having seen a sample, relying entirely on the reputation of the maker for good results.

TEMPLE'S BIG STORE

Ralph Temple is at last in possession of his big store—or, rather, his two big stores—on Wabash avenue, Chicago. When a Motor Age man called there on Tuesday the establishment was found to be nearing completion and within a few days the workmen will have departed and business will be on in earnest.

Temple has gone at his task in no half-hearted way. He had announced that he would have, in many respects, the crack automobile store of Chicago, and he means to carry out the promise he made to himself. The space at his disposal is about 50 by 100 feet, on the main floor, and underneath the whole runs a basement, free from obstructions, once used as a cycle riding school by the Pope Mfg. Co. and Charles F. Stokes. He has therefore about 15,000 square feet of space at his disposal, and that he will make good use of it is shown by the widely diversified line of goods he will handle.

One of the features of the new store is to be the remarkable lighting effect. Temple wants to make his establishment the most prominent on the avenue, and has hit upon electric lighting as the means to the accomplishment of his end. He will be content with nothing short of his own electric plant and has installed a 15-horsepower Nash gas engine and a large dynamo. With this he will run fifteen arc lights, scores of incandescents, and a charging station.

A portion of the basement will be used as a repair shop and here have been installed all the appliances necessary to do an up-to-date job on any style of machine in the market.

Temple's line of goods will include electric, steam, and gasoline vehicles, parts and sundries of every description. That he will do an extensive business from the start is certain, for he is laying his plans so that it will never be necessary for a customer to leave his store to procure anything he may need in the automobile line.

A sample of Temple's enterprise is shown in a deal just closed with the promoters of the coming Chicago show. He has purchased over 3,000 square feet of space at the north end of the gallery, overlooking the other spaces in which he is interested, for the purpose of supplying space, stands, attendants and all other necessaries for people who, while desiring to exhibit, do not feel that they can afford the expense of sending a representative to Chicago. Temple will provide at least five salesmen and as many more as are necessary to carry on the work properly.

GREAT STORE FOR 'FRISCO

San Francisco, Feb. 8.—The newest motor vehicle recruit in this port is Charles A. Hawkins, manager of the western branch of the White Sewing Machine Co., a branch that has for its extensive operating territory all of the United States west of the Rocky mountains, all of the Pacific ports of Asia, the Pacific coast of Mexico and Central and South America, and British Columbia and Alaska.

The warmest sort of automobilistic enthusiasm seems to permeate New Recruit Hawkins who says he believes that in San Francisco the automobile will come into much more general use than in any other city. And as to the outlook for motor vehicle business on the Pacific coast he is equally enthusiastic, especially so when associating with his remarks along this line references to the White company's steam patents which he says cover an entirely new application of steam, in which no steam or water gauge is necessary and in the



This is the style of vehicle recently shipped to Australia by the Winton company. Three of them have been sent forward for the use of the post office department at Sydney. The company regards it as a particularly attractive form of wagon and naturally feels that it has achieved something of a beat in securing the order from the British government, which has many makers at home to draw upon. The achievement must be regarded as a feather in the cap of the American industry which will have a beneficial effect on the trade with all foreign countries.

use of which it is impossible to burn out or explode the boiler.

Mr. Hawkins states that he not only has ordered from the factory his first installment of automobiles, soon to arrive, but has formulated plans for the construction of a number of heavy trucks to be equipped with the White engines and boilers and to be used for drayage purposes in San Francisco; also has plans soon to materialize in a company organization to run hacks and coupes, to take the place of the old style horse vehicle.

Preparatory to all this Mr. Hawkins is about to turn the White company's magnificent cycle display room at Post and Stockton streets, the largest in the city, comprising a floor space of 7,700 square feet, into an automobile repository, and that the larger portion of the 15,000 square feet of basement space is to be utilized for an automobile warehouse and repair room.

AUTOCARS READY TO MARKET

Manufacturers of steam vehicles are taking advantage of the present wintry weather to prove to the doubters that, despite claims to the contrary, their products can be operated in cold and snow provided they are given reasonable care. The Autocar Co., of Ardmore, Pa., has forwarded a picture of one of its vehicles, running in five inches of snow. Two weeks ago a picture of a Locomobile was shown, proceeding in a snow-storm.

The Autocar company has not yet attempted to sell its vehicles in the open market, but, having used and sold a number in the neighborhood of the factory for the last six months, have de-

cided to branch out and have added 80,000 square feet of space to the factory for the purpose. After March 1 the company will have a capacity of four vehicles a week, every one of which it will guarantee as to power, workmanship and material.

"The Autocar," says Secretary Wm. Morgan, "has been thoroughly tested by several well -known experts and pronounced one of the finest, easiest running and simplest to control in the country. Our 1901 model will be something exceptional, as there are many features added and such refinements that go to make up a perfect running gasoline carriage. We have absolutely no vibration, the control of our carriage is entirely confined to one lever, and the motor is as flexible as any steam engine known, and is automatically governed. The operator has nothing to do but steer the carriage and move the throttle according to his desires for a higher or lower speed. Several orders have been taken for spring delivery in Chicago and within the next sixty days we hope to have several samples of our carriage in operation on the streets of Chicago."

The Racine Boat Mfg. Co., of which Carse Bros. Co., 64 and 66 Wabash avenue, is the manager, is building all the passenger launches to be used on the lagoons at the Pan-American exposition. They are to be twenty-five feet in length and Racine electro vapor engines will be used in their propulsion. The Carse Bros. Co. is about to issue a new boat catalogue, in which will be shown a fifteen ft. fishing launch which is being marketed at $150. This will be ready in about two weeks. The company reports a satisfactory and steadily increasing demand for its launches.

The Rochester Cycle Mfg. Co., whose efforts in the automobile line have been previously referred to, have just issued literature relative to the boiler and burner it is offering to the trade. Both are of the standard size, fourteen inches high and sixteen in diameter. The boiler has a seamless steel shell and 364 half inch copper tubes. It is tested to 400 pounds steam and 600 pounds cold water pressure.

The Mackie Steel Tube Mfg. Co., of 166 East Lake street, Chicago, announces that it has secured the services of the former superintendent of the C. J. Smith & Sons Co., of Milwaukee, and will give particular attention to the production of high grade, lap steel tubing and parts for automobiles and bicycles. Before it was taken into the bicycle combine the Smith factory was one of the best in America and carried on an immense business with makers of cycles.



AUTOCARS NOT AFRAID OF A LITTLE SNOW

From the Four Winds

WHY HAVE we not more automobile patrol wagons, ambulances, etc? The fact that they are invariably for operation on city streets rids the problem of their manufacture of some of the difficulties met in the production of vehicles for general usage on all kinds of roads under all kinds of conditions.

The exact requirements in the matter of size, radius of travel, speed, carrying capacity, etc., are known. There need be no attempt in their building to account and provide for unknown contingencies and necessities during operation. Their general introduction rests on the manufacturer, for, while city fathers, so-called, are as a class credited with conservatism, they cannot in this case be expected to stretch their arms and cry for goods which have not as yet been even shown to them. For who, aside from two or three firms, have actually placed in operation vehicles of this class?

To demonstrate is of necessity a strong factor in the sale of all kinds of motor vehicles and in consideration of the numerous stringent tests, trials and trips to which automobiles for general uses are subjected that probable customers may appreciate thoroughly their practical efficiency, it is not asking too much of intending producers of vehicles for public use to exercise similar enterprise in the latter line.

Wherever they have been introduced electric cabs and omnibusses have given satisfactory results. The hundreds of such vehicles now running daily on our city streets, the numerous steam and gasoline delivery and postal wagons which have been exhaustively tested here and in Europe and the mammoth steam and gasoline omnibusses and trucks now operated publicly and privately across the continent, prove beyond all question that automobile patrols and ambulances can certainly be successfully made.

The public is generally ready for all new things, but the public nowadays is on the order of the well known man from Missouri who wishes to be shown. It is no use to go to the public and say: "We build successful runabouts, delivery wagons, victorias and busses and if you wish we will build you successful ambulances to haul away your sick ones, and successful patrols to haul away your drunken ones." Instead the introduction must follow a line like this: "We have practical up-to-date patrols and ambulances. They do their work much more efficiently and much cheaper than do horse drawn wagons for the same purpose. Here they are. They have been tried and they did not fail. They are ready and you can save money by installing them. We will give you practical demonstrations of their ability at any time."

The facts that the governing boards and executive departments of several cities have already gone to automobile manufacturers with the especial requests that such vehicles be built for them, that several cities have been experimenting with automobile machines, even of the nature of street sweepers, and that at least one American city appropriated the price and purchased, unsolicited, an automobile fire engine, show that a little

of the same energy that characterizes other branches of the industry would yield ample returns if exerted in this direction.

It always costs a fair amount of money to build samples. It has already cost the automobile industry much money to build machines for demonstration and selling purposes, but this money might just as well be spent in one sure field as in another, and when it is spent in the field of vehicles for public service by cities it is spent where it will accrue not only by the measure of direct returns, but also by the indirect prestige which the widespread introduction of automobile city wagons will effect in the directions of general use. Every automobile owned by the city, seen on the streets of the city, leads ten business men of the city to conclude that they had better be investigating the matter of motor delivery and other commercial automobiles.

OFFICERS PRAISE THE AUTO

Chicago's city electrician has just issued his first annual report on automobiles and it is altogether complimentary.

"The results thus far obtained," the report reads, "indicate that the automobile vehicle is a safe means of transportation if operated by a reasonably intelligent and careful operator. There have been only twelve accidents and all of a minor character.

"The total number of licenses issued during the year indicates that there will be at least 1,000 automobiles in use before January 1, 1002."

A tabulated statement of the classes of licenses issued shows that of private automobiles ninety are electric, fifty-five gasoline and forty-four steam. Total of licenses, 377.

ASKS FOR MORE BRAKE POWER

Some weeks ago a driver who had a number of passengers behind him attempted to climb a steep ascent and came to grief. He lost control of the vehicle and backed into the curb, fortunately without hurting anyone seriously.

A subscriber at Los Angeles, where the accident occurred, and who was present at the time, advises Motor Age that the operator was a locomotive engineer, accustomed to be watchful in his work and cool-headed in case of an accident, and who had climbed the same hill many times before. The accident was caused by some failure of the valves of the engine and to failure of the brakes to hold the machine. The gentleman regards the occurrence as a good lesson to manufacturers who, he thinks, do not apply brakes of sufficient power. "The brakes," he says, "do not hold the machine when running backward. I have had trouble of the same kind and the person who was operating the vehicle has had similar experience. He turned the vehicle into the curb to prevent it running down the hill and into thickly packed streets."

AUTOS AND HEALTH

"If, as we believe to be the case," says the Hospital, a journal devoted to the medical profession, "the motor car has a great future before it, the whole question of the pavement of our streets will have to be reconsidered. If we consider the immense advantages which asphalt possesses from a sanitary point of view and the economy in motive power which must result from its smoothness we may be quite sure that in proportion as the horse becomes non-essential the use of asphalt or some similar smooth and cleanly road surfaces will come more and more into vogue in all towns where the gradients allow of their employment. It is the sanitary aspect of asphalt pavement which especially appeals to us. So far it seems to be the only form of road surface which is capable of being kept decently clean, and this is a matter of the first importance.

"If we are to accept the conclusions arrived at by Dr. Waldo, medical officer of health to the parish of St. George the Martyr—conclusions arrived at after careful investigation of the facts—a very considerable proportion of the mortality from diarrhea, one of the most fatal of diseases among town children, is due to

the pollution of milk and other articles of food with street dust, in other words with dried horse dung highly charged with deterious micro-organisms. Filthy street dust we must always have with us, unless we have streets that we can wash. It is probably to the facility with which asphalt can be washed that we must look for explanation of the largely diminished death rates which have been noted in certain towns after the introduction of this material as a paving.

MR. FIELD ON GASOLINE VEHICLES

Automobile Club Notes, a clever little publication prepared weekly by the secretary of the Automobile Club of America for the benefit of members, contained, in its last issue, an article by Cornelius J. Field, chairman of the technical committee of the club, on the subject of gasoline vehicles.

Mr. Field, in his business life, is the president and general manager of the De Dion-Bouton Motorette Co., which company he organized. Every particle of its success, so far, has been due to his efforts, for he has devoted every minute of the business days for the last two years to a careful study of both the mechanical and commercial requirements of the business. He is therefore well qualified to furnish information on the topic selected which will prove acceptable to that large number of persons who regard gasoline as the power of the future, even though some may fail to agree with his deductions as to the relative merits of European and American built vehicles.

"During a business trip to England and France, on automobile matters, in 1900," says Mr. Field, "I had an excellent opportunity to study the automobile situation abroad, both from a manufacturing standpoint and that of a private user.

"It is a well known fact that the gasoline motor vehicle has been much more widely developed in Europe than in this country, and that for pleasure purposes—both for light and heavy vehicles—and for a good deal of commercial work, it has a practical monopoly of the field over there. The reason for this may undoubtedly be traced to the fact that the gasoline, or hydro-carbon, motor, is a product of European design, and every successful gasoline motor in this country is a copy or modification of some European-type made machine.

"The manufacture of gasoline motors was going on, and their development carried along to the commercial stage, eight or ten years before they were receiving any consideration, practically, in this country. It was only natural, therefore, when modern agitation of the automobile commenced, that the manufacturers turned to the gasoline motor as more fully adapted to the wider range of conditions and service than any other type of machine, either steam or electric.

"We may divide the gasoline motor vehicle, or automobile as found abroad, into three general classes:

"The first class is the light voiturette or motorette class, running from five to eight hundred pounds in weight, with a seating capacity of two, three or four passengers, using a three to five effective horsepower motor. Machines of this class and of the second class, which is a little heavier voiturette type, are in more general use to-day than any other, and are proving the most popular type.

"The engines for these two classes date back to the invention and development of the light gasoline motor for automobile service by DeDion, Bouton & Co., of Puteaux, France, who were the pioneer inventors and developers of the light weight air and water-cooled motors, in contradistinction to the heavier machines; and, although there are many manufacturers of these light motors abroad, these pioneers lead the field and

furnish their motors to a majority of the leading manufacturers in England, France and Germany, to the exlusion of all others.

"We have no type of American vehicle corresponding to this light voiturette, except where the foreign style has been introduced here. These little machines correspond in general weight to the steam mobiles as developed in this country. They operate fifteen to twenty-five miles an hour speed, and carry their load over any road which a horse-drawn vehicle can travel.

"They are a higher-powered car, weight for weight, than the heavier American made machines, the motor of which is rated at the assumed horse-power, and not effective horse-power, which is only two-thirds of the former. The weight of these machines and horse-power capacity is a striking feature to the American, who has only been used to the heavier type of machines that has been imperfectly developed in this country up to the present time. The price of these little voiturettes in our currency runs from $1,000 to $1,500.

"The second class should properly be termed the high-powered voiturette or motorette, and which is of more recent development, especially this last year, and at the present time is one which is attracting very wide attention, coming in and filling the field between the light voiturette and the heavier-powered Panhard-Levassor, Daimler and Napier type machines.

"These high-powered motorettes, running in weight from eight to twelve hundred pounds, with horse-power capacity of six to ten effective actual brake horse-power, with seating capacity for three to five people, have in almost every case, the motor located in front of the machine. It should be there on this style of motorette, as it distributes the weight more evenly on the wheels and makes the motor more accessible, and last, but not least, makes a much better operating vehicle. They use various types of bodies, of which probably the most popular one is the Tuneaur style, and are beyond question proving themselves for general touring purposes the most practical, serviceable and desirable vehicle, and one of moderate price.

"The price of these high-powered voiturettes run from 10,000 francs, about $2,000, to $3,000, and, except for strictly high-powered racing purposes, have by far the widest use of any of the classes.

"Among the prominent manufacturers of this type of machine, and practically all of which are using the DeDion motor or models thereof, are DeDion, Bouton & Co., Darracque, DeCauville, Clement, Ariel, Motor Mfg. Co., Renault, Motor Car Triumph and other makes.

"These high-powered voiturettes are of the same general features, in some respects, of the high-powered heavier class machines, except that they run about half the weight, same general arrangement of the motor, but use the universal jointed shaft, driving direct to a bevel gear on the rear axle, in contradistinction to the heavier type where the drive is to a counter shaft, from which chain drives are used to the hubs on the two rear wheels. This direct driving method is undoubtedly proving, thus far, that it is more effective, cleaner, and requires less care and attention.

"This type machine has a speed, with two to four people, of from twenty-five to thirty-five miles an hour on good macadam roads.

"Special interest is attracted to these machines when their weight is considered, as compared to what we have been used to consider for not near as effective results in this country, and in securing this weight strength has been in no manner sacrificed at all. It is simply a question of better design and lighter motor and machinery, owing to the experience had on matters by the manufacturers, and the result is about half the weight of what we have considered necessary for the same service here.

"The third class are the high-powered road machines of Panhard-Levassor, Daimler, Napier, Mors and imitators of these types.

"These are the sized machines that have been used for the high-speed road races, and which the wealthier class have used for general touring purposes, and which sold in the manufacturers' hands

at from $3,000 to $6,000 and over. Special ones, which have made a celebrated record in some of the larger races, have sold at premiums of from fifty to one hundred per cent over the manufacturers' prices.

"This is a type to which much attention has been directed, but I believe the high-powered voiturette, or motorette, will cut into it, and take away a good deal of the prestige which they have heretofore had. For certain high-powered road uses, and for the largest type of machines in the shape of coach-busses and wagons for commercial purposes, the motors and running gears of this large type will undoubtedly be mostly used, and for that class of service they will undoubtedly gradually enter in contradistinction to that of those small high powered road and racing-machine motors.

"These machines run in weight from about seventeen to eighteen hundred pounds to three thousand pounds, and of horse-power from ten or twelve to twenty-four or thirty, and some are now being built for this coming season up to about fifty to sixty effective horse-power. These machines, though, are undoubtedly getting to the limit of human endurance in operating, and also to the limit of reason and safety for use on the highway.

"The next question which naturally arises in the minds of the observer, in looking over the field, is, 'Have we in this country models of these three types of machines or modifications from them? Replying to this, on looking around carefully, one must answer 'yes' and 'no.'

"In the first class the light voiturette type is now being reproduced in this country, and is meeting with a very wide and popular reception.

"The high-powered voiturette class will undoubtedly be introduced into the market this coming season, and will beyond question prove a very popular type.

"The third class, or high-powered vehicles, we only have represented here by a few of the imported machines belonging to Messrs. Bostwick, Vanderbilt, Bishop and Gould, and before the close of the year I believe we will have American reproductions of these types.

"The manufacturers of strictly American-designed machines here as a whole have, owing to national pride, been inclined to disregard the experiences and practices of abroad, and went ahead blindly to design from their own lack of experience.

"The general idea in the minds of the public that the foreign machines, on account of the better roads over there, would not stand the American roads is wrong. My own experience, both on roads abroad and those in this country with both European type and American type machines, proved conclusively that the European type machine has been designed to stand the severest strains and conditions equal, it not harder, than those demanded on our American roads; and after running and operating these European type machines over several thousand miles on European roads, and some eight thousand miles of American roads, I have yet to develop a weak point in their design, construction or manufacture."

At the Paris automobile exposition the prominent chauffeurs in attendance have been indulging in considerable argument concerning the question of whether the operator of a vehicle should sit on the right or the left hand side. Various arguments pro and con of the case have been brought forward, but the general consensus of opinion seems to amount to the conclusion that custom dictates the solution and this, in France, means left hand drivers' seats.

A Locomobile with runners instead of front wheels was successfully tested by some of the company's attaches at Westboro, recently.

The Wells Mfg. Co., of Des Moines, Ia., has secured the state agency for the Locomobile.

The trade, the public and the press favor the Chicago automobile exhibition to be held March 23 to 30 in the new Coliseum.

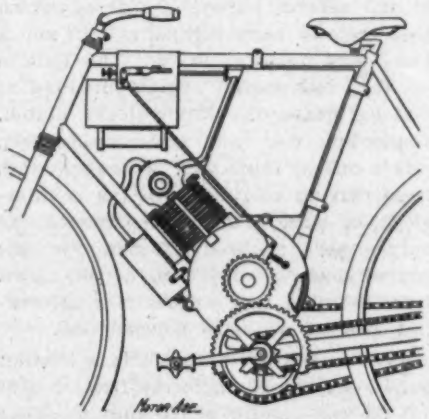
THE WEEKLY PATENT OFFICE BUDGET

THE MOST interesting of the recent issues of motor patents is the Clemens motor bicycle, which, although it is not revolutionary in its character, presents more novelty in its construction than do the contemporary motor vehicle patents.

CLEMEN'S MOTOR BICYCLE

Letters patent No. 667,062, dated January 29, 1901, to Chester E. Clemens, of Springfield, Mass.

The trend of current invention is to



Clemen's Motor Bicycle

build the motor crank box of motor bicycles into the frame of the machine, and already this construction has been exampled in a wide range of schemes. In almost every instance the motor cylinder has been disposed in an upright position in line with the seat mast tube and the pedal shaft hanger has been placed rigidly in connection with, or as an integral part of, the crank box.

Mr. Clemens adopts the common method of utilizing the motor crank box as the principal bottom bracket of the frame, with the pedal shaft hanger as an auxiliary thereto. He, however, departs from the customary practice to the extent of placing the motor cylinder in an oblique position on top of the lower reach tube of the frame. The pedal shaft hanger is directly below the motor crank box and connects with the rear wheel by sprocket and chain as usual. The chief novelty of the invention is the method of securing disconnectable motor drive.

On the left end of the motor shaft is a small spur pinion which meshes with a spur gear running loosely on the pedal shaft. The inside end of the hub of this spur gear carries a sprocket, over which runs the motor drive chain to the rear hub.

The spur pinion on the motor shaft is not rigidly mounted, but is rotatably disposed between a retaining end disk on the motor shaft and a sliding disk adjacent to its inner face. The sliding disk is formed with a taper flange, which is normally in close proximity to the undercut inclined or tapering rim of the pinion. On the inner side of the sliding disk is a pair of clutch or ratchet rings, one of which is loosely mounted and provided with an operating arm which is connected to the end of a link or rod running to the rider's latch or handle on the front part of the bicycle frame. The other section of the clutch is a part of the crank casing.

Between the loose clutch ring and the adjacent face of the sliding disk, against which it bears, is a row of balls in suitable raceways that the disk may revolve with the motor shaft, to which it is splined, without causing undue friction

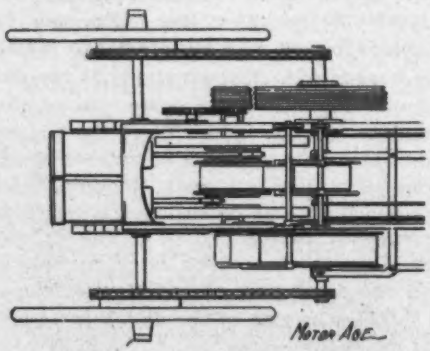
between it and the non-rotary clutch ring. When the rider switches the controlling latch or handle so that, through the movement of the connecting rod, the arm of the loose clutch ring swings and turns the clutch ring from its normal position of close engagement with its mating ratchet, the two ratchets will slide on each other and the separation of their inclined surfaces will cause the loose ring to force the sliding disk on the motor shaft outward. The disk's inclined or taper flange is thus wedged within the undercut rim of the spur pinion, and the latter is accordingly made to revolve with the motor shaft and transmit its motion to the bicycle driving gear.

If the spur pinion were replaced by a small sprocket wheel the gearing could be simplified, without sacrificing the motor disconnection feature, by driving direct to the rear hub with a chain from the motor shaft.

BELT AND FRICTION GEAR

Letters patent, no 666,739, dated January 29, 1901, to William E. Davis, of Milwaukee, Wis.

Seven sheets of drawings and 800 lines of reading matter compose the patent specifications of this invention, but the bulk of the patent does not prevent the invention from being classed with that large aggregation of recent motor ve-



Davis' Running and Transmission Gear

hicle drawing-board creations labeled "mediocre." The plan view of the machine as produced herewith illustrates the invention sufficiently for the purpose of brief description.

The first feature of note is the running gear, which comprises a long, narrow, rectangular frame of angle iron. The cross connection of the rear end of this frame is a casting in the form of a bridge piece which forms a rigid support for the two cylinders of the horizontal hydro-carbon motor.

Both the rear and front axles are connected to the frame by pairs of ordinary double leaf springs. The motor and transmission mechanism being rigidly mounted on the frame, the rear axle being free to tilt relative to the frame and the driving connection to the rear wheels being two straight runs of sprocket chain, it is easy to imagine that this inventor forgot something when evolving his vehicle—forgot that sprocket and chain systems out of alignment do not run with exceeding ease and grace.

On the motor shaft are mounted two pulleys and a friction pinion with annularly grooved periphery. Each of the pulleys drives, by means of a wide belt, a pulley on a countershaft, and the sizes of the several pulleys are arranged so that the two pairs furnish a high and a low speed forward drive. The pulleys on the countershaft being mounted so that by means of suitable sleeve, clutch, connecting rod and lever mechanism, either one of them may be brought into rigid driving relation with the countershaft, or both of them disconnected, the only other necessary feature of the countershaft in order to drive direct from it to the rear wheels, is a differential gear of ordinary construction.

Also on the countershaft is a friction pulley corresponding to the friction pinion on the motor shaft and in close proximity to it. The counter shaft is in slidable boxes, so that it may be shifted bodily backward and forward by the operator's lever mechanism. When it is moved backward the two friction pulleys are brought into driving relation with each other and the belt pulleys on the countershaft are disconnected. A reverse drive is thus effected.

Ordinary idler belt tighteners are applied to the forward driving belts. The exact construction of the numerous details of the shifting devices does not

present much if anything of value, being simply adaptation of ordinary mechanical motions and methods.

FIVE NEW TIRES

Letters patent No. 667,400, dated February 5, 1901, to Alfred S. Moore, of Galt, Cal. Two-section wooden rim with hollow rubber cushion between and with metal tire.

Letters patent No. 667,348, dated February 5, 1901, to Ferdinand W. Starr, of Springfield, Ohio. Method of construction, a solid rubber tire to be readily attached to a deeply channeled rim.

Letters patent No. 666,725, dated January 29, 1901, to Rollin S. Woodruff, of New Haven, Conn. Method of securing butt end of solid tire for heavy vehicles.

Letters patent No. 666,746, dated January 29, 1901, to Henry G. Fiske, of New York city. Pneumatic vehicle tire with inwardly raised base to afford a cushion seat for the tread portion in case of accidental deflation. The raised base is in the form of a semi-circular annulus.

Design patent No. 34,002, dated January 29, 1901, to John M. Sweet, of Batavia, N. Y. Cross sectional shape of a solid rubber vehicle tire.

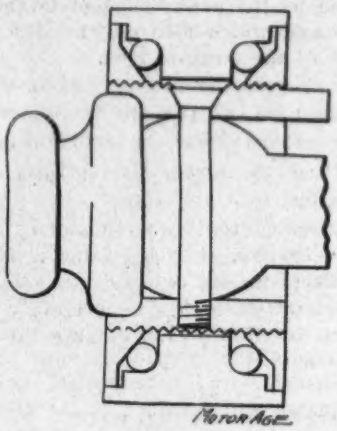
STEERING PIVOT

Letters patent No. 666,773, dated January 29, 1901, to Philip Neu, of Elgin, Ill.

There are two standard forms of steering pivots for automobiles. The more common of these is that in which a stub axle for the wheel is mounted on a vertical knuckle joint or pivot. In this form of steering connection, in order that the axis of the pivot may intercept the tread center line of the wheel tire, the knuckle must be staggered outward. In the other type of pivot this staggered axis is obviated by making the pivot within the hub of the wheel and with its axis coincident with the center line of the wheel. It is not difficult to construct a pivot of this sort, the chief hindrance and the principal reason for its limited use, being that unless an abnormally large hub shell is employed the angle of turning is limited to an extent less than the exigencies of vehicle driving may require.

Mr. Neu's invention relates to the construction of one of these hub pivots, and, while he has provided a simple and practical device, he is up against the difficulty mentioned, the same as other inventors of similar devices.

The end of the axle is pivoted within a ring whose outer end is capped for the



Neu's Steering Pivot

sake of appearance and cleanliness. The pivot is simply a vertical pin passed through the axle and screwed into the under side of the ring. The outer periphery of the ring is screw threaded to receive at each side a ball cone. Between these cones run on ball bearings an annulus which forms the hub shell or ring of the wheel. A stud projecting from the inner edge of the non-rotary ring attaches to the steering link.

AN OLD SCHEME

Letters patent No. 666,775, dated January 29, 1901, to George B. Nussbaum, of Lock Seventeen, Ohio.

One of the heritages which the motor vehicle industry has received from the bicycle trade is the inconsequent idea that a machine may be satisfactorily driven by making the drive wheel in the form of rings against whose inner peripheries revolve rollers on stationary axles. The latest adaptation of this mildewed scheme is here presented by Mr. Nussbaum, who combines with it a method for securing flexible drive of limited

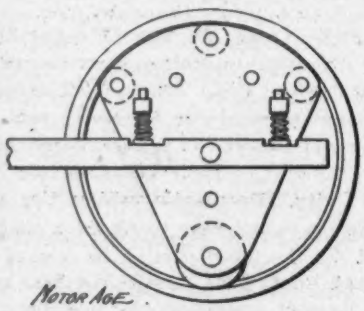
freedom, so that hand shocks may not be transmitted to the gear when starting and stopping the vehicle.

Mounted on the rear axle at each end is a large triangular plate which at its top carries three rollers whose grooved peripheries engage the beaded trackway formed on the inner periphery of the traction ring. At the bottom point of the plate is a larger roller which is driven by the power element of the vehicle and which also engages the bead track of the traction ring.

To prevent the plates from revolving on the axle two coil spring connections are made between each plate and its adjacent frame reach, the springs, their mounting rods and thrust blocks being so arranged that the triangular plates have limited, spring-retained, rotary movement on the axle. Thus when the driving rollers at the bottom of the plates are first put into operation the starting of the vehicle will not be accomplished with an immediate jerk, as the plates will rotate a slight distance before the traction rings begin to turn. The inventor states that a gradual picking-up of power is thus attained, although to the common eye it appears that the shock of starting the traction rings would simply be deferred until the plates had rotated to the limit of their prescribed play. But, then, the common eye cannot detect the differences between practical effects and illusionary principles with the inaccuracy of the untrained inventor.

RELIEF FOR THE HORSE

After having tried an experiment on the people of New Haven, Conn., the company which has for so many years operated the antediluvian stages which run on Fifth avenue, New York, has now shown that electric omnibuses can be made a success in the metropolis. They carry twenty-two passengers and are said to cost $5,000 apiece. The general adoption of self-propelled vehicles, not only for public but for private service, is urged by the Chicago American, which, in an article entitled, "Pray for the perfect automobile," says: "It is horrible to contemplate the suffering of unfortunate horses on slippery pavements these winter days. No cruelty can excel that which is inflicted upon the smooth-shod horse, compelled to drag a load on slippery asphalt. In many cases the work is absolutely impossible. The poor beast stands shivering with apprehension. Every foot is slipping. His



Nussbaum's Traction Device

nerves are tortured with the fear of a fall and with dread of the master who sits, lash in hand, behind him. Walking painfully at snail's pace on the coldest winter day, the poor horses are streaming with sweat—the sweat of abject fear and mental suffering. The only relief to horses must come from the perfected automobile. It is not unreasonable to hope that within a few years the horse will disappear from our icy pavements and go to spend his few remaining days on earth in the country, where he belongs. The streets would then be clean and less noisy. We shall have made one more step in the direction of civilization, because we shall have abolished one hideous form of wholesale cruelty. Pray that a perfected automobile may be speedily invented."

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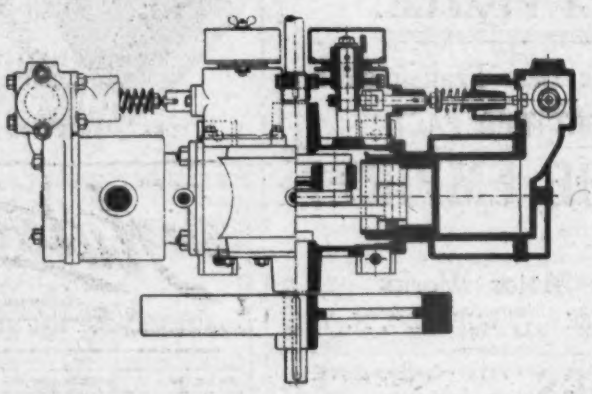
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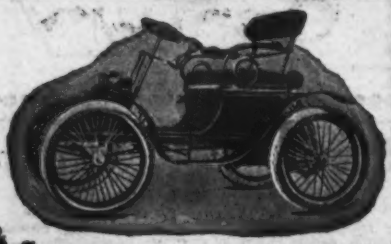
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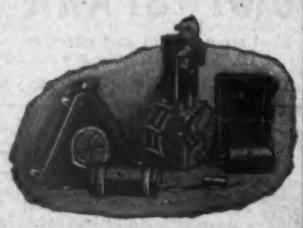
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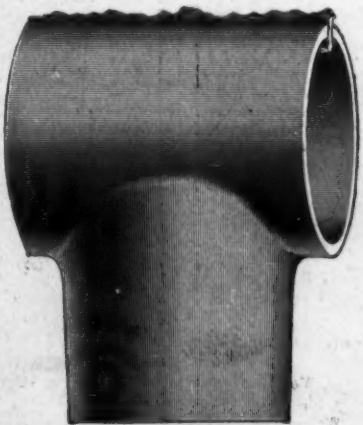
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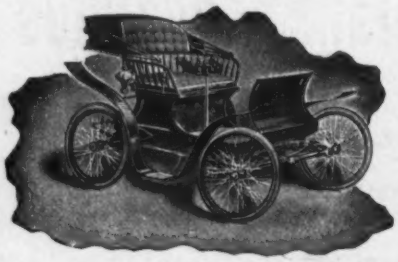
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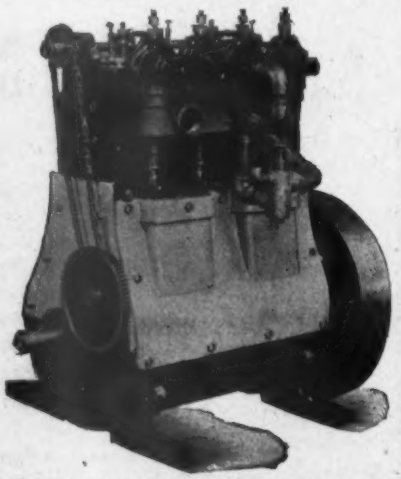
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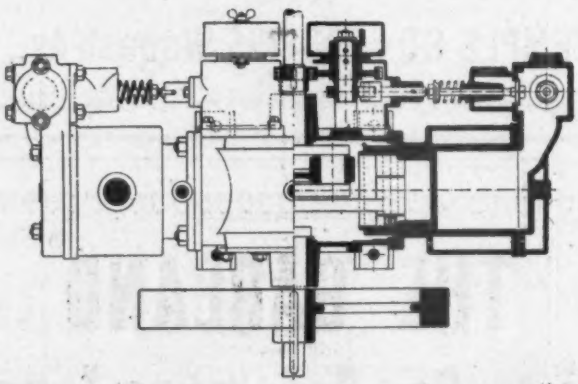
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